

ANNUAL REPORT

OF THE

Department
of Health

[DEPARTMENT OF PUBLIC AFFAIRS]
City of Newark, New Jersey



For the Year Ending December 31, 1918



ANNUAL REPORT
OF THE
Department of Health
[DEPARTMENT OF PUBLIC AFFAIRS]
CITY OF NEWARK, NEW JERSEY



FOR THE YEAR ENDING DECEMBER 31, 1918

THE ESSEX PRESS, PRINTERS
NEWARK, N. J.



WITH THE COMPLIMENTS OF THE

DEPARTMENT OF HEALTH
OF NEWARK, N. J.

THIS DEPARTMENT WOULD BE GLAD TO RECEIVE YOUR
PUBLICATIONS IN RETURN

CHARLES V. CRASTER, M. D., D. P. H.
HEALTH OFFICER

ERRATA

Page 20 Total number of patients treated should be
31,562 instead of 30,692.

Page 20 Total number of prescriptions dispensed
should be 40,679 instead of 40,579.

Page 36 Tubercle Bacilli Not Found December should
be 82 instead of 182.

Page 39 The 0 on first line of table under the word
female should be 1.

Page 67 Gangrene, Lung.....1 in Respiratory Table,
should be 2.

Page 88 Total of Year should be 30.10 instead of 30.14.



*"As the earth, wealth, art, property, all must in a few years be
given over to these little ones, may we not wisely use a large
proportion of its income to make them worthier to possess it."*

—ROBERT HUNTER.

DEPARTMENT OF PUBLIC AFFAIRS

CITY OF NEWARK

Director.....CHARLES P. GILLEN, Mayor

Deputy Director.....JOHN P. GILLEN

DEPARTMENT OF HEALTH

Health Officer.....CHARLES V. CRASTER, M. D., D. P. H.

OFFICES

Headquarters, Plane and William Streets.....Phone 8550 Mkt.

City Dispensary, Plane and William Streets.....Phone 8550 Mkt.

Laboratories (Bacteriological, Pathological and Serological)

Hospital Building, 116 Fairmount Avenue.....Phone 9300 Mkt.

Chemist, H. B. BALDWIN, 927 Broad Street.....Phone 1100 Mkt.

"Science does its duty, not in telling us the cause of the spots in the sun, but in explaining to us the laws of our own life and the consequences of their violation."—*John Ruskin.*

TO THE READER:—In this report of the health of the city for 1918 there is much food for thought. Let us try to learn the lesson it teaches, and by each doing his part to conserve the health of himself and that of his neighbors, make our city a pattern to others.

CHARLES V. CRASTER, M. D., D. P. H.,
Health Officer.

Newark, N. J., March 1, 1919.

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EMPLOYEES OF THE DEPARTMENT OF HEALTH

EXECUTIVE DIVISION

CHARLES V. CRASTER, M. D.	<i>Health Officer</i>
WILLIAM J. BLEHIER	<i>Bookkeeper</i>
ROBERT F. MORGAN, JR.	<i>Stenographer-Clerk</i>
HENRY A. HABE	<i>Stenographer</i>
MARGRITA DE LAPE	<i>Telephone Operator</i>
*MALCOLM HUNTER	<i>Multigraph Operator</i>
ELBERT S. BALL	<i>Clerk Vital Statistics</i>
CORA B. NATHAN	<i>Asst. Clerk Vital Statistics</i>
AUGUST W. JARLOSCHE	<i>Janitor</i>
JAMES P. MADDEN	<i>Night Custodian</i>
JOSEPH COLLINS	<i>Chauffeur</i>
DAVID D. CHANDLER (Retired)	<i>Health Officer</i>

SANITARY DIVISION

WILLIAM H. YOUNG	<i>... Clerk in Charge</i>
ANDREW J. BRAY	<i>... Detailed Inspector</i>
BERNARD J. CAHILL	<i>Detailed Inspector</i>
CHARLES F. CONRAD	<i>Detailed Inspector</i>

Inspectors

WILLIAM HOPPER	CASPAR BENZ
MORRIS SEIDL	PATRICK J. BROGAN
CHARLES H. BURKE	EDWARD A. CLEARY
ANTONIO PANZERA	JAMES WHELAN
HUBERT O'ROURKE	EDWARD J. FLYNN
JOSEPH A. MAGUIRE	CHARLES E. DEVINE
CLARENCE J. PALMER	HOWARD HUFFERT
PATRICK J. KEATING	ADOLPH O. ELSSASSER
JAMES J. WATERS	THOMAS P. WALSH
HENRY MACDONALD	GUSTAVUS E. FRIEDEMANN
JOHN P. ROGERS	<i>Stenographer</i>
EDWARD A. SMITH	<i>Stenographer</i>

* In Army service.

DEPARTMENT OF PUBLIC AFFAIRS

PLUMBING DIVISION

CHARLES A. HALLGREN

*Chief Inspector**Inspectors*

ANDREW J. MCGOOKIN

JACOB KULL

EDWARD P. COLISTON

JOHN L. WHELAN

PATRICK J. MONAGHAN

CONTAGIOUS DISEASE DIVISION

DR. F. E. WORM

Chief Inspector

JOHN J. GREENE

Inspector

DISINFECTING DIVISION

THOMAS MULLICAN

Chief

JENNIE M. NALLY

Inspector

SAMUEL KNOTT

Inspector

GRACE E. WHITE

*Inspector**Inspectors*

HIRAM R. STEWART

GEORGE A. VAN HOLTEN

RICHARD J. CORBLEY

FRED W. NICHOLS

GEORGE W. GILMORE

THOMAS F. NEWTON

OBADIAH S. COLE

ED. G. DUFFY

IRWIN C. DAKIN

JOHN A. DONOVAN

GARRETT E. ST. JOHN

FOOD AND DRUG DIVISION

SAMUEL G. SHARWELL

Chief Inspector

HERBERT B. BALDWIN

Chemist

WERNER RUNGE

Veterinarian

JOHN N. WHITFENN

Veterinarian

LEWIS E. BOUTILLIER

Food and Drug Inspector

WILLIAM S. WYBB

Food and Drug Inspector

JOSEPH E. CONNOLLY

Food and Drug Inspector

HENRY F. K.

Inspector

CHESTER L.

Inspector

DANIEL KUHN

*Meat Inspector*JOHN LEVINE *Sanitary Inspector detailed to Food and Drug Division*

AMOUR F. HOLMIG

Sanitary Inspector detailed to Food and Drug Division

JULIAN G. BLUMENAU

Stenographer

GRACE E. MANN

Stenographer

LABORATORY

DR. R. N. CONNOLLY	Bacteriologist in Charge
THOMAS RIPLEY.	Assistant Bacteriologist
H A TARBELL	Assistant Bacteriologist
JOHN F. DUNN.....	Culture Collector
WILLIAM J. FOYLE	Culture Collector
MARY FUREY.....	Portress
CATHERINE SHARPE	Typewriter-Copyist

CITY DISPENSARY

HENRY OLFMAN	Apothecary
ARTHUR F. WARREN	Assistant Apothecary
ANNA M. BRIDGETT	Record Nurse
ALICE L. MICH	Nurse
EDNA B. W. SMITH	Nurse
JAMES CENTANNI	Attendant
LEO J. McMANUS	Dentist
I. E. H. GUTHRIE	Dentist
PHILIP BAYER	Massager
CLARA M. McLELLAN	Massense
ROSE MOORE	Woman
MARY B. GRANT	Woman
VAN S. HURLBURT	Janitor

VENEREAL DISEASE BUREAU

H. J. F. WATSHAUSER, M. D.	Director
---------------------------------	----------

DISTRICT PHYSICIANS

DR. CHARLES F. HILL	DR. M. J. COFFEY
DR. MARY BROADNAX	DR. ABRAHAM ROTHSEID
DR. W. F. L. RODEMANN	DR. PAUL HOSP

PAROCHIAL SCHOOL NURSES

ANNA FULTON	SUZANNA A. SADLER
FLORENCE M. MAWER	JULIA M. MEEHAN
MARY F. CLINTON	

TUBERCULOSIS DIVISION

*THOMAS N. GRAY, M. D.	Physician
M. J. FINE	Assistant Physician
MARY F. MCGUINNE	Nurse
HERMAN BUNCH	stenographer
WILLIAM H. GREEN	stenographer

Nurses

GENEVIVAE K. HLROLD	ELLA THITON
CORNELIA M. WHITEHEAD	MELVINA RYAN
FRANCES DOLAN	EVA M. MUIFORD

MARIE HARRINGTON

* Died July 22, 1918.

CHILD HYGIENE DIVISION

JULIUS LEVY	Director
ANNA E. HORN	Secretary
ELSIE PETERS	Stenographer
ELIZABETH ATKINS	Supervisor of Midwives

Clinic Physicians

HYMAN SHLAPPIN	CHARLES M. ROBBINS	HERMAN S. NASH
----------------	--------------------	----------------

Nurses

EVA WAX	MARGARET L. POTASH
ANNA K. JACOB	BESSIE RIKER
ANNA GLENNON	FLORENCE WEINER
ROSE FERNICOLA	JEANNETTE GURNLEY

CORNELIA ENGLISH

MARY N. CORBO, Assistant Hygiene Teacher

IN GOVERNMENT WAR SERVICE

MABEL E. D. HYATT	Tuberculosis	Red Cross Nurse
JOSEPHINE C. TRONOLONE	Child Hygiene	Red Cross Nurse
SARAH D. LONGYEAR	Child Hygiene Nurse	Red Cross Nurse
NATHAN BERNSTEIN	Stenographer	Yeoman
THOMAS CROGHAN	Typewriter	Nurse
MALCOLM HUNTER	Urograph Operator	Nurse
DR. G. WARD DISBROW	Assistant Bacteriologist	Nurse
DR. SAMUEL HIRSCHBERG	District Physician	Army
DR. MEYER JEDLI	District Physician	Army
H. S. MARTLAND, M. D.	Pathologist	Army

ANNUAL REPORT

OF THE

Health Officer

FOR THE YEAR 1918

ANNUAL REPORT

OF THE

Health Officer

FOR THE YEAR 1918

To His Honor, Charles P. Gillen, Mayor, Director Department of Public Affairs.

DEAR SIR: I beg to submit the report of the activities of the Department of Health for the year 1918, which year will stand out as an exceptional experience in the records of the department.

The entrance of America into the World War in 1917 brought about restrictions in the sale of food, in the use of fuel, and in the general habits and customs of the community, for whose proper observance the assistance of the department was repeatedly invoked. The successful carrying out of all orders without discussion or opposition was a striking example of team-work in the whole-hearted co-operation of the public, the Government and the local municipal departments.

The past year, however, will be more marked in our annals of mortality and disease records, for it is a rare experience for a city to be visited by two epidemics of wide prevalence in any one year, and yet this was the case with Newark in 1918. In the first six months there were 7,531 cases of measles. In the fall, influenza swooped down upon the community with a record for October, November and December of 29,320 cases and 2,183 deaths from influenza.

above figures. The same is also true of the above table, which shows that the 24 during 1917, which numbered twenty four, are compared with the above figures.

THE POPULATION OF THE CITY.

With the expansion of many city industries due to the war, the population of Newark has advanced in 1918 by leaps and bounds. There is, however, no accurate measure whereby this increase could be estimated. In normal times, of considerable assistance in this direction is the estimate of population in new buildings. Because of the lack of new buildings, the population in 1918 was reduced to a minimum. The increased accommodation for workers could not be obtained except by further congestion of existing facilities in apartment houses and tenements. Many families living in their homes in Newark had to find homes outside the city.

The arithmetical increase in population for any intercensal period cannot be accurate at the best of times. It is, therefore, much more likely to be incorrect for such times as these, where conditions of labor are subject to general and unusual fluctuation. The estimated population for the city was 430,000, which probably underestimates considerably the exact figure for the year.

THE MORTALITY RATE.

We will have to go back fourteen years in the history of the city to meet any figures which compare with the high mortality for 1918. The total number of deaths from all causes recorded in 1918 was 8,483, among whom 4,568 were males and 3,915 females. There were 2,278 more deaths recorded in 1918 in Newark than in the previous year. Upon an estimated population of 430,000, the death rate for the city in 1918 was 19.7 per thousand living. This rate is 4.4 points higher than the previous year and can com-

compare only with the rate of 1904. The average death rate for the decade 1890-1904 was 18.9 per thousand living. The table below shows the crude death rate for the city since 1894:

CRUDE DEATH RATES FOR NEWARK—ACCORDING TO CENSUS
AND INTERCENSAL ESTIMATED INCREASES.

Year	POPULATION.	NO. OF DEATHS.	DEATH RATE.
1894	203,923	4,543	22.28
1895	215,725	4,615	21.37
1896	225,000	4,716	20.96
1897	230,000	4,010	17.43
1898	235,000	4,303	18.30
1899	240,000	3,537	14.73
1900	246,070	5,006	20.34
1901	250,000	4,806	19.22
1902	255,000	4,943	19.38
1903	266,000	4,923	18.50
1904	272,000	5,378	19.77
1905	283,239	5,025	17.74
1906	290,000	5,551	19.14
1907	300,000	5,724	19.08
1908	305,000	5,207	17.07
1909	311,000	5,529	17.77
1910	347,469	5,784	16.64
1911	352,000	5,337	15.16
1912	370,000	5,423	14.65
1913	380,000	5,562	14.63
1914	395,000	5,809	14.70
1915	375,000	5,382	14.35
1916	385,000	6,357	16.50
1917	405,000	6,205	15.30
1918	430,000	8,483	19.72

If we calculate upon the estimated population of the United States Census Bureau of 428,684, our mortality rate for 1918 would be 19.78 per thousand. The following table gives the general death rate per thousand from all causes and the mortality and morbidity rate per 1,000 population from six common epidemic diseases in thirty-four cities over 100,000 population:

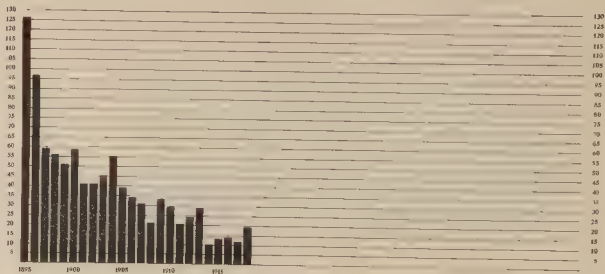
ANNUAL MORTALITY AND MORBIDITY RATES FOR DYSINTEIRIA OVER 1000 POPULATION AND FOR OTHER DYSINTEIRIAL DISEASES OVER 500 POPULATION

16

CITIES	Rate per 1000 Popu- lation	Popu- lation 1918	RATE PER 10,000 POPULATION												
			Typhoid		Typhus (All Forms)		Scarlet Fever		Measles		Diphtheria		Pneumonia (All Forms)		
			Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality	Mor- bidity	Mor- tality			
Baltimore				.2				1	14.8			3		7.2	58.8
Boston				.8				4	0.1						
Buffalo				.3				3	8.2						
Chicago				.1				1	8.4	1					
Cincinnati				.1				2	7						
Cleveland				.4				.1							
Columbus				.4				.1							
Columbus			1	.9				.2							
Cleveland				.5				.9							
Cleveland			4	.9				.3							
Cleveland				.7				.5							
Cleveland				.6				.6							
Cleveland				.2				.1							
Cleveland				.2			1	.04		2					
Cleveland				.6				.1							
Cleveland				.8				.9							
Cleveland				.4				.1							
Cleveland				.0											
Cleveland				.5				.2							
Cleveland				.4				.3							
Cleveland				.3				.3							
Philadelphia				.5				.2							
Philadelphia				.6				.2							
Philadelphia				.2				.1							
Philadelphia				.6			1	.2							
Philadelphia				.7											
Rochester				.2											
Rochester				.2											
San Francisco				.4			1	.1							
St. Paul				.3				.3							
St. Paul				.5				.7							
St. Paul				.7				.1							
St. Paul				.5				.6							
Trenton				.5				.6							
Washington				.1			1	.4							

Mortality from Diphtheria

(Rate per 100,000 Population)



Vital Statistic Division, Dept. of Health

MORTALITY AT AGE PERIODS.

Glancing at the mortality for the year, very unusual changes are seen in the selective age periods at death. In average years the highest mortality is at the two extremes of life. In 1918, the selective age for influenza is between 25 and 44 years, with 1,337 deaths at this age in 1917, the highest number for any twenty-year period was 2,382 deaths in 1918, as compared with 1,337 in 1917. This increase in mortality for children under 5 years was mainly due to measles, influenza, bronchitis and pneumonia.

MORTALITY FROM INFLUENZA.

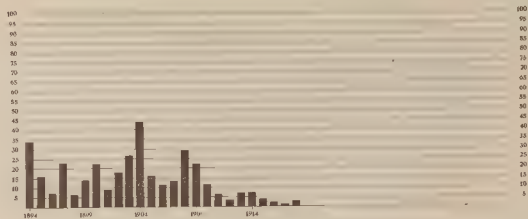
Of the 1,408 deaths for the year under any one heading for 1918 is for influenza, 1,387, which, when taken together with pneumonia, which numbered 1,418, account for nearly a third of the whole mortality. In the deaths from influenza, the number for each sex are nearly equally divided. In the age period at death, the number for each age group is given in table 7036, atlas. The age period 5 to 24 had 343 deaths, and from 45 to 64 had 122 deaths. Under 5 years of age, 185 children perished.

Among the 1,408 deaths from pneumonia of both types, 544 were between 25 and 44 years, 236 from 5 to 24 years, and 429 below 5 years of age. The effect of the unusual mortality from influenza and pneumonia is well seen when compared with the previous year:

<i>Influenza</i>	1917.	1918.
Colored	1	50
White	23	1,337
Total	24	1,387
<i>Pneumonia—</i>		
Colored	173	159
White	590	1,339
Total	763	1,498

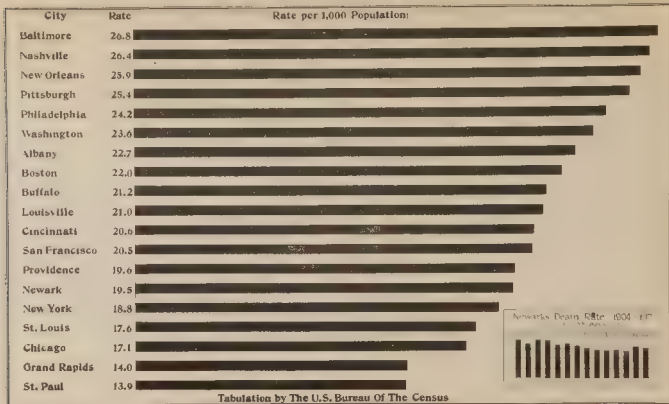
Mortality from Scarlet Fever

(Rate per 100,000 Population)



Vital Statistic Division, Dept. of Health

Annual Death Rates For 1918 in Cities Over 100,000 Population

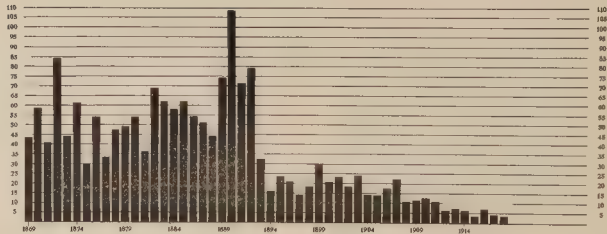


DEATHS FROM SCARLET FEVER, TYPHOID FEVER AND
DIPHTHERIA PER 100,000 POPULATION, 1894-1918

	SCARLET FEVER	TYPHOID FEVER	DIPHTHERIA
1894	33.8	16.7	
1895	16.2	23.2	126.0
1896	7.6	20.9	11.9
1897	23.5	14.3	8.0
1898	6.4	17.4	81.6
1899	14.2	25.0	81.7
1900	22.4	20.3	51.1
1901	9.2	22.8	41.2
1902	18.0	18.4	41.3
1903	26.7	23.7	45.1
1904	44.1	14.7	85.1
1905	15.9	14.1	38.8
1906	11.7	17.2	34.1
1907	13.7	23.0	31.7
1908	26.2	11.5	21.0
1909	22.5	12.5	33.8
1910	11.2	11.2	21.0
1911	6.0	11.2	21.1
1912	3.0	7.0	24.6
1913	6.9	7.0	21.9
1914	6.8		10.4
1915	16.0		18.1
1916	1.8		14.8
1917	1.7	4.0	12.3
1918	2.6	5.0	11.1

Mortality from Typhoid Fever

(Rate per 100,000 Population)



Vital Statistic Division, Dept. of Health

TUBERCULOSIS MORTALITY.

There were 183 deaths from pulmonary tuberculosis in 1918, and 78 deaths from all forms of the disease. This represents a rate of 1.56 and 1.86 per 100,000 living respectively. This is the lowest rate from the disease since 1915, but cannot be taken as correct until we can compare the results of a non-epidemic year. It is probable that many tuberculous cases in 1918 died from influenza and pneumonia. This assumption is partly confirmed by comparing the number of tuberculous deaths for 1918 and 1917 at the age period where influenza was most fatal. These figures are for 1918, age group, 25 to 44 years, 337 deaths from tuberculosis as compared with 300 for the same age group in 1917. On the other hand in the age groups under 5 years the deaths for 1918 are 20 as compared with 53 for 1917.

The statistics on tuberculosis in children are a portrait sketch of the disease and infection of the very young. It is a fairly good test of only the extreme susceptibility of the young to tuberculosis, but that more than 75 per cent of children exposed to the disease contract it, that is, that the contracted focus which may or may not develop, may or may not according to the opportunity for removal of the focus tuberculosis or the development of a progressive infection. The facts of child tuberculosis thus point out to public health authorities the goal at which they should aim.

If the tuberculosis problem must be attacked at the child end, the first step is to recognize that tuberculosis is a child disease. The second step is to recognize that the child is the only place where the disease can be removed. This can only be carried out by a rigorous attempt to separate the tuberculosis case from the children.

**TOTAL DEATHS AND DEATH RATES PER THOUSAND
AND DEATHS AND DEATH RATES FROM PUL-
MONARY AND OTHER FORMS OF TUBER-
CULOSIS SINCE 1900**

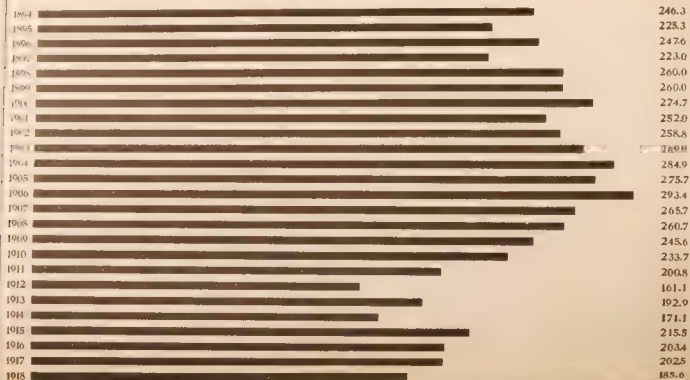
YEAR	Total Deaths	Total Death Rate per M	Total Deaths Pulmonary Tuberc	Death Rate Pulmonary Tuberc.	Total Deaths All Forms Tuberc.	Death Rate All Forms Tuberc per M
1900	1,006	20.34	668	45	676	13.4
1901	1,806	17.22	781	35	623	12.52
1902	4,947	19.34	556	15	2,690	25.90
1903	4,993	18.90	627	15	2,118	23.70
1904	5,378	19.77	651	23.80	2,771	23.84
1905	5,097	17.74	647	22.28	2,781	23.75
1906	5,551	19.14	685	23.36	2,871	23.93
1907	5,724	19.08	685	22.28	2,771	23.65
1908	5,267	17.07	628	22.06	2,771	23.65
1909	5,329	17.77	696	17.92	2,764	23.45
1910	5,784	16.64	681	17.86	2,817	23.2
1911	5,337	17.17	564	16.17	2,771	23.01
1912	5,422	14.60	506	15.47	2,766	23.01
1913	5,962	14.63	631	15.69	2,735	23.93
1914	5,809	14.70	62	47	2,766	23.71
1915	5,382	14.03	687	8	2,766	23.71
1916	6,357	16.90	685	77	2,763	23.0
1917	6,905	16.30	704	17.71	2,871	23.02
1918	8,483	19.72	683	17.17	2,766	23.80

**DEATHS FROM ALL FORMS OF TUBERCULOSIS, AR-
RANGED BY MONTHS AND SEX, FOR THE YEAR 1918**

MONTH	PULMONARY			OTHER FORMS			Grand Total
	Male	Female	Total	Male	Female	Total	
January	39	18	57	2	2	4	61
February	54	27	74	9	4	13	87
March	6	1	7	1	1	2	9
April	6	1	7	10	8	18	25
May	66	1	67	1	8	9	76
June	32	8	40	1	1	2	42
July	30	6	36	10	5	15	51
August	1	13	14	1	1	2	16
September	7	15	22	1	4	5	27
October	1	4	5	1	1	2	7
November	1	18	19	7	1	8	27
December	43	16	59	1	1	2	61
Total	471	211	682	71	47	118	798

Mortality from Tuberculosis

(Rate per 100,000 Population)



The County Board of Freeholders is extending the accommodation for tuberculosis cases in the Sanatoria under its charge. This will, of course, enable more cases in the active stage to receive hospital treatment and will relieve many homes from a possible disaster. The programme of development for sanatorium treatment is, however, incomplete unless a very broad vision is taken of the necessity of conserving the children's strength with tuberculosis, as well as those who have been unduly exposed, by treatment in suitable preventoria or special hospitals for these cases. Other counties in the State of New Jersey have already progressed along wider lines and have provided very ample accommodation for infected or exposed children. The Board of Freeholders of Essex County must be in the forefront of modern progress in fighting tuberculosis and can not neglect the planning of Preventoria for children.

INFANT MORTALITY RATE

The deaths under one year of age numbered 1,215 for the year, making an infant mortality rate of 104.7 per thousand births. This is an increase of 16.9 points over the rate for 1917, which was 87.8. This increase in deaths at this age group was principally due to greater fatality under measles, influenza, bronchitis and pneumonia. The following comparison is made with causes of death under 12 months for 1918 and 1917:

CAUSE	1918	1917
Measles	33	
Influenza	52	5
Pneumonia (Bron.)	98	70
Pneumonia (Lob.)	57	51
Bronchitis	84	72
Diarrhoea	269	250
Congenital Debility	442	432

THE BIRTH RATE.

There were 11,601 births in the city during 1918, making a birth rate of 27 per thousand persons. The rate in 1917 was 29.1 per thousand. The male births numbered 5,997 and the female 5,604. The colored births numbered 449 and 487 births were recorded among non-residents. The illegitimate births numbered 136.

CLASSIFICATION OF BIRTHS IN 1918

		Rate per 1,000
Males	5,997	13.9
Females	5,604	13.0
Total	11,601	27.0
White	11,051	25.7
Colored	449	1.0
Yellow	1	
Illegitimate	136	.3
Still births	535	1.2

EPIDEMIC DISEASES IN 1918.

The year 1918 was notable for the unusual prevalence of epidemic diseases. These were particularly the respiratory diseases which set new records for prevalence in the city. In the first six months of the year there were 7,577 cases of influenza reported, as compared with 1,380 for the same period in 1917. There was a corresponding greater prevalence of pneumonia as a complication of this disease.

The epidemic of Spanish influenza, which became prevalent in the last week of September, however, bears the main responsibility for the year's unimpaired record of disease. In comparison with other great epidemics from Boston to the south, New York and Los Angeles, the influenza epidemic of 1918-19 is longer reported to December, and there is reason to believe that this number falls far below the

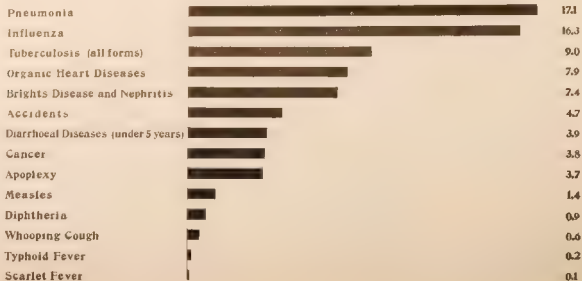
actual total of disease prevalence. The deaths alone from influenza numbered 1,386 as compared with 24 in 1917. The deaths from the accompanying pneumonia numbered 1,498 as compared with 704 in 1917. By reason of this epidemic, new and exceptional calls were made upon the resources of the Department requiring in most cases much social service investigation.

Measles became unusually prevalent in the early months of the year, reaching the peak in April with 2,116 reported cases for the month. The disease was distributed in every ward of the city. On account of the prevalence of measles and influenza, pneumonia of both types were abnormally evident. The cases of both types reported for 1918 were more than double those reported for the previous year.

Mortality From Principal Causes Of Death, Newark, N. J.

1918

(Ratio To Total Deaths)



Pneumonia	17.1
Influenza	16.3
Tuberculosis (all forms)	9.0
Organic Heart Diseases	7.9
Bright's Disease and Nephritis	7.4
Accidents	4.7
Diarrhoeal Diseases (under 5 years)	3.9
Cancer	3.8
Apoplexy	3.7
Measles	1.4
Diphtheria	0.9
Whooping Cough	0.6
Typhoid Fever	0.2
Scarlet Fever	0.1

The percentage of deaths to reported cases in lobar pneumonia was 23.8 per cent and for the bronchial type 18.9 per cent for the year. The case fatality from pneumonia was probably higher than here stated for the reason that many deaths from pneumonia are included under the contributing cause of death, which was frequently measles or influenza.

Epidemic Meningitis cases were reported in increasing numbers during the year but no definite epidemic center existed in the city. The cases were sporadic and showed no tendency to spread widely in any direction. There is no doubt that the vast number of men in cantonments presented an ideal occasion for the spread of this disease to the cities and that it did not, reflects great credit upon the sanitary authorities of the army and naval forces.

Two cases of smallpox occurred during the year in the community and in both cases outside infection was shown. The disease was prevalent in Southern New Jersey, the latter end of 1918, and only rigid quarantine and vaccination in the infected area prevented the infection of our large cities.

The following diseases were less prevalent throughout the year 1918 than during 1917:

	1918	1917
Typhoid Fever	87	111
Scarlet Fever	515	669
Tuberculosis (all forms)	1,961	2,097
Infantile Paralysis	19	35
Whooping Cough	2,139	3,625
Chickenpox	807	3,128
Hook Worm	17
German Measles	474	2,905
	<hr/> 6,002	<hr/> 12,587

The diseases showing increased prevalence in 1918 were as follows:

	1918	1917
Diphtheria	974	87
Measles	7,779	2,003
Erysipelas	215	211
Influenza (not reportable in 1917)	29,704	
Lobar Pneumonia	4,321	2,234
Broncho Pneumonia	627	1,108
Epidemic Meningitis	102	60
Mumps	825	1,424
Smallpox	2	
	47,548	7,927

TYPHOID FEVER

The Typhoid Fever prevalence is the lowest in the history of the Department records, only 87 cases being reported during the year. The 12 deaths reported from the disease would indicate, however, that there must have been a number of missed or mild cases which either did not have medical attention or in which diagnosis of Typhoid was not made.

SCARLET FEVER, DIPHTHERIA AND TYPHOID FEVER
SINCE 1895

	DEATHS SINCE 1900 FOR ALL DISEASES		
Year	CASES	CASES	CASES
1895	1,321	623	149
1896	1,261	537	106
1897	969	1,358	103
1898	1,019	478	179
1899	1,170	607	515
1900	1,417	708	320
1901	1,154	643	316
1902	985	557	259
1903	1,150	779	306
1904	1,653	1,649	210
1905	1,614	1,309	228
1906	1,273	616	336
1907	1,039	773	330
1908	806	1,500	181
1909	1,393	1,786	210

1910	1,585	1,664	178
1911	1,339	1,027	200
1912	1,098	698	193
1913	1,594	1,036	217
1914	1,490	1,696	250
1915	1,210	618	108
1916	923	885	126
1917	870	669	111
1918	974	515	87

TYPHOID FEVER IN A CITY INSTITUTION.

Several cases of typhoid fever were reported from the Boys' Home at Verona during the month of August, 1918. At the request of the Mayor, the Health Officer was asked to take charge of the outbreak. Immediate steps were taken to remove all cases and suspects numbering six from Verona to the City Hospital. The rest of the inmates numbering 230 boys and employees were subjected to a blood test for possible carriers, after which typhoid vaccine was administered to prevent any further spread of the disease.

A diligent search for the source of infection by the Division of Contagious Diseases, Food and Drug, Sanitary and Laboratory did not bring to light any probable source of infection. The sanitary survey of the building and grounds carried out by the inspectors of the Sanitary Division revealed a few unsanitary conditions which were immediately remedied by the Superintendent. The cause of the outbreak was not revealed although certain possibilities were considered, such as the bathing in the polluted Neckman River at Verona and the eating of shellfish of certain kinds. There were no further cases after the measures for vaccination and prevention were carried out.

The lesson of the outbreak would seem to be the necessity of having the inmates of institutions immunized against typhoid fever where the age period is under 30 years.

THE NEW BUREAU OF VENEREAL DISEASES

The formation of the Bureau of Venereal Diseases was carried out for the purpose of co-operating with the Federal and State authorities who were actively engaged in a propaganda for the control of venereal diseases in cities. The various venereal disease clinics in the Dispensary were placed under the direction of a Director of the Bureau, who was provided with a male investigator and a trained nurse to follow up cases requiring investigation. A woman physician was also added to the personnel of the Clinic Staff. An ordinance requiring the reporting of venereal diseases to the Department was passed by the City Commission. Active co-operation with the U. S. Army authorities and the local Police Department is a feature of the work of the Bureau. A follow up system of all cases suspected of exposing others to infection, was inaugurated and maintained. A special ward at the City Hospital has been set aside as a detention ward for irresponsible sufferers from venereal diseases.

The records show that since July, when the Bureau was created, the attendance for venereal diseases at the clinic was:

Cases of Syphilis	1,418
Cases of Gonorrhoea	1,315

Roads by the police brought to the Department Clinics 283 suspected women, of whom 10 were found positive for venereal disease.

A DRUG ADDICT CLINIC.

A clinic for drug addicts was established in the Dispensary under the direction of Dr. Charles A. Rosewater for the treatment and education of drug addicts. While this was being carried out, the State public health work and expenditures were being carried out by the State, justified its

trial. Dr. Rosewater, however, has been called for Government service, and the clinic has been temporarily merged with that for nervous diseases.

A SUMMARY OF 1918.

Not in many years has the city experienced the like of 1918 in the prevalence and high mortality from epidemic diseases. The restriction in the daily life of the community brought about by war conditions had, however, only become noticeable to a moderate degree. Certain foods were high in price but in no case was any necessity of life prohibitive in cost except to the very poor and in these, in only a few instances. The restrictions in the use of wheat flour, of butter and of sugar had not existed long enough to exert any great effect upon the growth of young children or the physique of the adult. The increase in the deaths under one year, however, indicated some tendency toward a state of malnutrition, as was the experience of other combatant nations.

THE MENACE OF OVERCROWDING.

The extension of war activities in the city and the erection of new industrial plants brought about during the year, a great influx of labor. For the accommodation of these people, the city was unprepared. Houses and rooms during the year were at a premium and much undesirable overcrowding and congestion resulted in all sections of the city. Reports from inspectors repeatedly brought this to our attention and yet little or no relief was possible. To meet the situation, many of the city ordinances directed against overcrowding and the use of cellar rooms were temporarily not enforced. There is still a serious situation and one which can only be relieved by an ample building programme by all who can see a return for this investment. Overcrowding is a serious menace, not only predisposing toward diseased

conditions of the market for homes which can not but react unfavorably upon the poorly paid trades and professions in this community.

Respectfully submitted,

CHARLES V. CRASTER, M.D., D.P.H.

Health Officer

INFLUENZA EPIDEMIOLOGY.

By CHARLES V. CRASTER, M.D.

Newark, N. J.

The deaths and disabilities due to the great pandemic of influenza of 1918 were as much the casualties of war as were the wounds and killed at the battle front, for the reason that the American people entered the great conflict as a belligerent and consequently made the influenza would have gained a footing in this country. If a lethal influenza was reported as prevalent in Europe as early as 1915 (G. A. Sher, *Lancet*, London 1917, 1918), but did not attract special attention amongst the belligerent nations until the spring of 1918, when influenza rapidly spreading epidemic form swept from one end of the continent to the other. It is impossible at this time to obtain accurate information of the influenza in the armies of the combatants. But it is likely that there must have been considerable numbers of cases of influenza, or Spanish influenza, or both, amongst the combatants as an indication of its spreading character and its influence in affecting the course of the war. The reports of its visitation throughout the world in the early months of its visitation throughout the world in the early months of its visitation. Although the influenza of 1918 is generally called Spanish it is questionable whether Spain was its point of origin.

The influenza of 1918 was set in America by the influenza of 1918, which swept over us

The concentration of vast multitudes of men in cantonments and camps will always under the best conditions bring about suitable ground for the prevalence of respiratory diseases so that in 1917 and 1918 the conditions were ideal for epidemic experiences. That such conditions were present was indicated by the reports from nearly every large cantonment of the unusual prevalence of pneumonia during the winter 1917-1918, notably in the camps of Camp Dodge, Iowa; Camp Pike, Arkansas; Camp Sam Houston, Texas, and Camp Zachary Taylor, Kentucky, where pneumonia in epidemic form associated with unusual complications became a common experience. This pneumonia was associated with a varying mortality, was atypical and the cause was a streptococcus frequently of a haemolytic type.

(Reprinted from the *Journal of the Medical Society of New Jersey*, Vol. XVI, No. 3, March, 1919.)

INFLUENZA CASES AND DEATHS SEPTEMBER, OCTOBER AND NOVEMBER, 1918.

Coincident with the epidemic in Europe influenza was reported from various localities in America, according to Soper (J. A. M. A., Dec. 7, 1918), as early as March, 1918, at Fort Oglethorpe, Ga. It is certain that there must have been many avenues for infection to be carried, for cases of epidemic influenza had been reported among the crews and passengers of ships arriving in American ports from Europe during June, July and August, 1918. The case of the troopship "Khna," which arrived in New York June 7th, 1918, attracted newspaper attention, inasmuch as so many cases of influenza had occurred among the crew that the ship had to put back to its port of departure. The epidemic, however, would seem to have originated in Boston, from which place it spread South and West.

According to Keegan (J. A. M. A., Sept. 28, 1918), the point of infection was from patients on the receiving ship

at Commonwealth Pier, Boston, Mass., on August 28, 1918. These cases came from Europe. This type of the disease appeared to be extremely contagious and spread rapidly, not only through New England States, but to every cantonment and camp in America. The disease spread like a prairie fire in a fan-shaped wave to surrounding territories and appeared in remarkably short intervals at camps separated by long distances. In the New England States the disease started during the first two weeks of September, in New York and Connecticut in the third week.

It is interesting to note that the occurrence of epidemic influenza in various camps was in some instances previous to and in others after its appearance in the civilian communities. At Camp Devens, Ayer, Mass., influenza was epidemic in the surrounding neighborhood before making its appearance at the camp. The City of Chicago, according to Dr. Robertson, was evidently infected from the Great Lakes Naval Training Station, situated 32 miles north of that city.

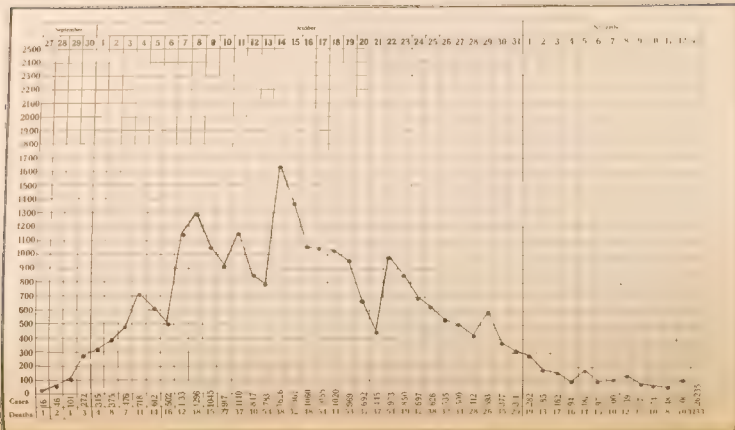
The epidemic at Camp Dix, N. J., and at the League Island Naval Hospital, Philadelphia, occurred in the latter two weeks of September. Philadelphia became infested about the third week of September and Newark in the fourth week. The crest wave of mortality for the large cities appears to have been during the third week of October and this holds good for cities as far apart as New York in the East, New Orleans, La., in the South and San Francisco, Cal., in the West. No better example could be quoted to illustrate the remarkable contagiousness of the disease known as Spanish influenza.

According to Report, I. A. M. A., Dec. 7, 1919, from September to October 31 there were among all troops in the United States 36,671 cases of influenza and 19,429 deaths. Of these cases five had influenza 20 per cent; one

in six developed pneumonia, of whom 40 per cent died. September, October and November were the three months of greatest epidemic prevalence, during which period, according to W. H. Davis of the U. S. Bureau of the Census (A. P. H. J., January, 1918), there were 94,267 deaths in the cities of the Health Index from pneumonia and influenza alone.

Epidemic influenza has been characterized in the camps and cantonments by unusual explosive violence, the duration of visitation being about three weeks. A week of quick rise, a crest week and a week of rapid fall in cases and deaths to complete disappearance. The experience of the cities has been somewhat different. The rise in cases and deaths was slower in each city, usually about two weeks leading up to the week of highest prevalence and mortality. The duration of the visitation varied from six weeks to an indefinite period which in some places has shown no tendency to entirely disappear. Indeed it has been the experience of many cities to have a secondary wave of cases and deaths of an intensity nearly equalling the first incidence.

Influenza Epidemic, Newark, N.J. 1918



INFLUENZA IN NEWARK.

The experience in Newark has not been different from that of other places, in fact any city report of the present epidemic would be found to cover the local situation. Situated as this city was in the track of the spreading wave of infection from New England it was inevitable that infection on a large scale was but a matter of time.

Ample notice of the coming of the epidemic was given by reports from other cities. Measures to safeguard the public were taken, including a city-wide campaign to inform the public of the nature of the disease and of the known measures advocated for personal protection. How far such means were successful in lessening the prevalence of the disease is at this time impossible to determine. All known precautions are at present under considerable criticism and only time will determine the value of each or any of them.

It was not, however, till the last week in September, 1918, with influenza raging in New York and in New Jersey and at Camden and Philadelphia, that cases of the disease appeared in Newark. Commencing with 437 cases reported in September, the number increased as follows:

Week Ending	Influenza	Pneumonia
September 30th	435	86
October 7th ..	4,131	128
October 14th	7,654	427
October 21st	6,602	741
October 28th	4,593	891
	—	—
Total	23,415	2,273

The crest week of prevalence of influenza was October 14th with 7,654 cases. The crest week of mortality did not correspond with that of prevalence, but occurred two weeks

later when the combined mortality from influenza and pneumonia was 101 per 100,000 population for week of October 20th. The influenza and pneumonia cases reported for three months were:

1918	Influ.	Pneu.	Prop. of Popu. Affected	Prop. of Pneu. to Influ.
October	24,261	2,480	6.2%	10.2%
November	2,465	703	0.7%	2.6%
December	2,543	670	0.7%	1.7%
Total	29,269	3,853	7.7%	12.8%

During these three months 77 per thousand of the population were attacked with influenza. One in fourteen of the population were victims of the epidemic.

The mortality from influenza and pneumonia during these three months was as follows:

1918	Deaths Influ.	Deaths Pneu.	Fatality for Combined Death Causes	of Pneu Cases
October	970	489	5.5%	19.7%
November	252	155	12.8%	22.0%
December	165	185	9.8%	27.6%
Total	1,387	829	6.8%	21.3%

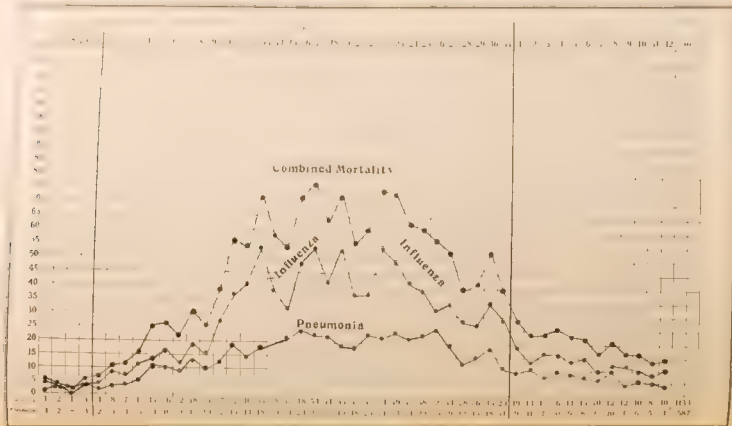
During the week of 1st there were only 788 deaths from pneumonia and influenza. The combined mortality from these two diseases appears to have been 0.8 per cent of the reported cases. The case mortality of pneumonia was 21.3 per cent and was highest in December, 27.6 per cent.

The case mortality of pneumonia following influenza in the three months was calculated to be 40 per cent. Of the 38,126 persons reported as having been infected, of whom 16 per cent developed pneumonia

PREVALENCE BY AGE AND SEX.

Although the incidence in sexes has been practically evenly divided, Spanish influenza has apparently shown a marked preference for certain age groups. Among 27,161 cases recorded during September, October and November the age groupings have been unusual. 12,940 were between 20 and 40 years, 47 per cent. In the ten-year age periods the highest prevalence was between 20 and 30 years, 7,550 cases. The ten-year period 1 to 10 years had 4,741 cases, and from 30 to 40 years, 5,390 cases. In the five-year periods under 20 the highest prevalence was between 15 and 20 years, 3,309 cases.

Mortality from Influenza and Pneumonia- Newark, N.J. 1918



The number of cases and age groups and the sexes were as given in the following table:

	Oct 1918	Nov 1918	Total
Males	12,744	1,110	13,854
Females	11,952	1,355	13,307
Under 5 years	1,668	315	1,983
5 to 10 "	2,471	288	2,759
10 " 15 "	2,489	235	2,724
15 " 20 "	3,084	225	3,309
20 " 30 "	6,959	591	7,550
30 " 40 "	4,881	509	5,390
40 " 50 "	1,943	162	2,105
50 " 60 "	849	100	949
60 " 70 "	268	29	297
70 " 80 "	79	11	90
Over 80 "	5	...	5

The liability to a fatal termination from influenza and its complications would appear at a glance to increase with age and is shown in the year period under 5 years and ten year groups under 25 years. This prediction for groups between 25 and 45 years shown by this type of influenza, no doubt accounts for the unusual prevalence and mortality in the army and in the streets, according to *Journal A. M. A.* December 7, 1918. 21 per cent of the cantonments were attacked with an average mortality among the pneumonia cases of 40 per cent.

SEX AND AGE PERIOD MORTALITY FROM INFLUENZA AND PNEUMONIA IN NEWARK IN 1918

The mortality from influenza and pneumonia did not show any disparity for the sexes in Newark. The age groups, however, were very unequal, owing to the heavy mortality around the age period Among a total of 2,183 deaths for October, November and December 1918 occurred within the age periods of 25-44 years or practically 50 per cent.

1918	Males	Females	Total
October	743	716	1,459
November	203	204	407
December	149	168	317
	1,095	1,088	2,183

	Oct 1918	Nov. 1918	Dec 1918	Total 1918
Under 1 year	46	24	23	93
1 to 2 years	67	20	10	97
2 " 5 "	103	29	14	146
Under 5 "	216	73	47	336
5 to 14 "	77	16	15	108
15 " 24 "	277	77	52	406
25 " 44 "	744	192	148	1,084
45 " 64 "	110	40	38	188
65 and over.. ..	35	9	17	61

COMMENT

Although there is apparently some doubt as to the means by which infection in Spanish influenza is spread, there can be no doubt of its extremely contagious nature where close contact between individuals is present. It has been a common experience to have whole families down with the disease, the individual members of the family being attacked in serial order, and leading the spread of infection from the sick to the well. In contradiction to some former theories held as to regard to influenza that repeated attacks in the same individual were common, which has not been the experience in this epidemic. As to the character and duration of the epidemic, many might doubt the possibility of Spanish influenza subsiding so early to prophesy. If the theory of periodicity holds, it is that the apparent immunity of the population is but a respite in this epidemic is but a small part of the total epidemic. Twenty years ago, then, the probability of a recurrence of the disease is not small. In any case, prophecies of a recurrence of the disease in the near future are not based on competent knowledge of the facts.

INFLUENZA AND PNEUMONIA MORTALITY AT AGE PERIODS DURING SEPTEMBER OCTOBER AND NOVEMBER, 1918.

AGE AT DEATH	MALES				FEMALES				WHITE				COLORED			
	Influenza	Lobar Pneumonia	Broncho Pneumonia	Other Respiratory Diseases	Influenza	Lobar Pneumonia	Broncho Pneumonia	Other Respiratory Diseases	Influenza	Lobar Pneumonia	Broncho Pneumonia	Other Respiratory Diseases	Influenza	Lobar Pneumonia	Broncho Pneumonia	Other Respiratory Diseases
0-4	84	28	41	4	71	32	42						6	8	1	
5-9	21	4	2		20	4	2	1					3	1	1	
10-14	6	10	1	1	18	3	2		23	1			1	1		
15-19	36	11	3	3	43	16	2	2					4	1		
20-24	70	17	9	1	98	46		1					6			
25-29	118	45	18	1	125	43	18	1					7	5		
30-34	134	47	18	2	99	32		1					11	6		
35-39	73	26	3		37	19	4	2					6	3		
40-44	25	14	4		30	10	5	1					4	1		
45-49	20	10	3	1	15	7	1						6		2	
50-54	16	6	1		16	9	1						1			
55-59	9	5		1	8	2	1		17							1
60-64	9	3	3	1	7											
65 and over	9	7	2	3	16	5	3	1								
Total, All Ages	630	233	108	18	608	229	101	10	182	427	187	26	51	34	22	2
WEEK ENDING																
September 7				2		1		1								
September 14			1												1	
September 21				1				2								1
September 28			4			5	1		7	6						
October 5		3			22	12			45	8	1			3		
October 12	9	9	14		5	28	16		157	4	29		8	24	1	
October 19	1	40	13		14	55	23	2	312	1	26		6	1	6	
October 26	14	44	16		141	50	32	1	280		52		6	6		
November 2	2	25	24		95	30	16	2	169		37		15	6	3	
November 9	2	18	11	1	44	20	5	2	92		16		4	1	1	
November 16	12	20	4	2	38	9	2	1	47	2	6		3	1		
November 23	23	6	3	6	20	11	3	1	43	17	6	6				1
November 30	11	8	4	2	20	8	3		30	14	7	2	1	2		
Totals	630	233	108	18	608	229	101	10	182	427	187	26	51	34	22	2

* 1 Yellow.

ANNUAL REPORT

OF THE

Division of Sanitation

FOR THE YEAR 1918

ANNUAL REPORT
OF THE
Division of Sanitation
FOR THE YEAR 1918

Dr. Charles V. Craster, Health Officer.

DEAR SIR: I herewith submit the report of the Sanitary Division for the year 1918:

SANITARY CONDITION OF THE CITY.

The scarcity of labor in nearly every trade and occupation in the city during the year 1918 required a somewhat new adjustment in our stand upon the enforcement of the sanitary law. Plumber, carpenter and mason work was at a premium and frequently very necessary work in houses and public buildings had to wait prolonged periods before repairs could be brought about. This shortage of labor combined with the unusual cold of the early months of 1918 required very much discrimination on the part of the sanitary inspectors to bring about the improvement of the worst conditions complained of. In these early months garbage and refuse collections were very frequently disorganized so that when the cold weather had passed very definite efforts were shown to be necessary to clear up the collection of ashes and garbage in cellars, backyards and arcways. In co-operation with the Department of Works a general campaign to clean up unsanitary conditions was commenced and continued during the Spring. So effective were these efforts that when the "Annual Clean Up" week took place in

More than 1,500 tons of refuse more than the average week's collection of refuse and rubbish to be handled. The volume of complaints that came in during the winter of 1918 was a sufficient proof of the effective knowledge of the public upon the delays of garbage collection being allowed to remain upon family premises.

Garbage collection of garbage has been satisfactory throughout the year. The public is being gradually accustomed to the regulating average in collections and it is seen that more satisfaction is being paid to the importance of putting all garbage and other waste matter into properly covered receptacles.

There is still, however, complaint upon the head of lost or broken receptacle covers, and it would look as if the ideal garbage can has yet to be produced.

The type required is one in which the can and lid should be made of a number of such durable material that rough use will not matter. The garbage pail should be made of steel and to be covered of material that will not easily rust.

THE HOUSING PROBLEM.

Numerous complaints have been received upon housing during the year. The influx of laborers for the new enterprises brought about a veritable famine in houses. As the winter closed to beget, the value of the accommodation of old houses were restored and put into a semi-rental for laboration. Much overcrowding and squalor was reported by inspectors, especially among certain colored sections.

The problem of overcrowding could not be forced without hardship to families who could find no room for themselves. The use of undesirable cellar rooms were reported daily but no abate-

ment except in the very extreme cases could be sought. These conditions put considerable extra duties upon the ward inspectors who were required to make frequent and long inspections where bad conditions were arising. Many of these insanitary places were only kept tolerably clean by appeals to the police judges. It is hoped that more building in the city will relieve this very undesirable situation in our tenement districts.

In connection with housing too much praise cannot be given for the Director of the Mayor's Rent Profiteering Committee who has worked indefatigably to bring about better and fairer conditions in the homes of the people.

The Division of Sanitation in addition to the Rent Profiteering Committee received many hundred requests for investigations which were found in the great majority of cases to be well founded.

If the committee has done not more than bring these conditions to light it has to us more than justified its existence.

THE INFLUENZA EPIDEMIC.

During October, November and December the divisional inspectors were called upon to perform duties of the disinfecting staff who were overwhelmed with the excessive number of influenza cases to be investigated and advised according to the orders of the health officer. Many thousands of influenza cases were investigated by the Division in co-operation with the Disinfecting Inspectors and the especially detailed police officers.

When the epidemic reached its maximum and the Emergency Hospital with an accommodation of 400 beds was opened in the Hahnemann Building the sanitary arrangements and the maintenance of the sanitary conditions were put in charge of detailed inspectors from the Division.

The Newark public has been educated to refrain from spitting and when necessary it is the Newarker's practice to go to the street gutters. New and conspicuous signs are in contemplation to be placed upon street signposts for the benefit of visitors from out of town.

THE PRETZEL BOY.

In cooperation with the Division of Food and Drugs active steps have virtually eliminated the pretzel boy from the streets of Newark. There are other things children can handle such as candy in packages which is not objectionable. The pretzel is liable to gross contamination and should be handled only in stores or restaurants. It is for this reason that the Department has taken active steps during the last two years to suppress the traffic.

THE ANTI FLY CAMPAIGN

The city is well provided with screens. Few complaints have come in during the year upon the lack of screens in dwellings. It is apparently recognized that screening against flies is a vital necessity to maintain health. It is a rule of the Division to require the providing of screens by landlords or lessees before renting premises to tenants.

The campaign against the open manure bin has been prominent and effective steps to abate conditions usually followed upon a notice by an inspector. At the same time the keeping of horses for trade purposes is being steadily abandoned. It will soon be a rarity to have horses stabled in the city for draft purposes alone. The automobile will very soon do all this work with a corresponding diminution in the breeding places for flies.

Respectfully submitted,

WILLIAM H. YOUNG,

Clerk in Charge, Sanitary Division.

GENERAL REPORT ON SANITARY INSPECTION FOR THE
YEAR 1918, AS COMPARED WITH THE YEAR 1917.

	1918	1917
Total number of inspections made	72,682	84,314
Inspections from complaint cards	5,662	4,135
Original inspections made	67,020	78,828
Special inspections made	250	115
Total number of re-inspections made	24,511	4,488
Total number of nuisances found	28,777	19,881
Number of verbal notices served	7,081	8,708
Number of written notices served	8,900	2,882
Number of special notices served	48	74
Total number of notices served	15,989	11,564
Abatements from verbal notices	6,181	8,819
Abatements from written notices	13,941	3,346
Abatements from special notices	37	27
Total number of abatements	20,159	12,192
Alleyways inspected	11,244	11,135
Alleyways insanitary	1,721	1,179
Arrows inspected	8,099	7,738
Arrows insanitary	17	23
Cellars inspected	23,228	28,894
Cellars insanitary	3,462	2,711
Yards inspected	31,162	26,869
Yards insanitary	4,348	5,188
Cattle and chicken slaughter houses inspected	581	479
Cattle and chicken slaughter houses insanitary	62	8
Cisterns and wells inspected	48	1
Cisterns and wells insanitary	6	
Cisterns and wells closed	2	1
Factories inspected	277	479
Factories insanitary	83	52
Schools inspected	128	35
Schools insanitary	2	
Stores inspected	4,264	3,909
Stores insanitary	363	265
Tenement houses inspected	5,486	63
Tenement houses insanitary	418	159
Houses unfit for habitation	94	31
Living rooms insanitary	86	
Dark and windowless rooms	15	
Theatres inspected	154	140

DEPARTMENT OF HEALTH

57

	1918	1917
Theatres insanitary	28	15
Buildings with no city water supply	1,332	846
Buildings unprovided with W. C. or P. V.	67	
Buildings with roofs, storm gutters or leaders defect	892	921
Plumbing in or on premises defective	1,572	1,388
Sewer connections ordered	53	
Pits under water closets defective	113	129
Water closets not supplied with water	2,548	999
Privy vaults and cesspools inspected	186	99
Privy vaults and cesspools insanitary	60	67
Privy vaults and houses ordered re-constructed	7	2
Privy vaults ordered cleaned and filled	20	25
Garbage and refuse accumulation	5,451	5,184
Stables inspected	2,429	2,784
Stables insanitary	507	329
Manure accumulation	851	887
Manure bins and pits uncovered	498	607
Streets insanitary	57	
General inspection cards filed in office	37	55
Visits to agents and owners of real estate	1,889	4,219
Warning cards handed to violators of spitting ordinance	196	112
Arrests made for violating spitting ordinance	28	130
Days detailed to enforce spitting ordinance	14	43
Number of spitting signs posted	61	1,141
Number of hours spent in court	497	
Milk, chicken and ice applications delivered	1,781	
Notices served for inspectors assigned to other districts	2,139	1,408
Dead animals reported	325	558
Complaints referred to other city departments	148	105
Scavenger dumping grounds inspected	257	285
Clinic cases investigated	262	
Inspection of influenza cases	4,645	
Food administration cards delivered	204	
Official calls made to city hall	227	212
Venereal disease signs posted	1,444	
Investigating dog bite cases	46	
Clean-up circulars and posters delivered	1,015	508
Pre-school clinic notices served	117	
Coal cards investigated	2,516	27,000
Jitney busses investigated	145	16

The scavenger collections for the year 1918, as reported by sanitary inspectors in the sixteen wards in the city have been normal with the exception of the months of January and February.

LIST AND NUMBER OF LICENSES ISSUED BY THE SANITARY DIVISION FOR THE YEAR 1918, AS COMPARED WITH THE YEAR 1917.

	1918	1917
Animal permits	104	72
Bird store licenses	10	13
Boarding house licenses	33	35
Chicken licenses	1,834	1,704
Commission house permits	24	26
Ice licenses	293	266
Refuse permits	49	46
Scavenger permits	15	45
Slaughter house licenses	35	37
Stall Holders' permits	28	28

There were 303 cases turned into the Law Department of which 13 cases are still pending. Costs of court was paid on 406 cases. Judgments were obtained on 44 cases.

The following inspections were made during the year in the interest of the Anti-Fly Campaign

Stables and cow barns	42
Manure accumulations	851
Scavenger dumping grounds	257
Inspection of yards	31,167
Number of yards found insanitary	4,395
Cattle and chicken slaughter houses inspected	581

REPORT OF SPECIAL DETAILED INSPECTOR
FOR THE YEAR 1918.

Dr. Charles V. Craster, Health Officer:

DEAR SIR: I herewith present my annual report for the year ending December 31, 1918:

There has been a slight increase in the number of persons bitten by dogs for the year 1918—565, as compared with 506 for the year 1917. There were 719 complaints of biting dogs, vicious dogs and dogs committing nuisances, etc., investigated. The skins of twenty-five animals were examined at the laboratory—six from out of the city. Of these fifteen proved to be positive for rabies (fourteen dogs and a horse), and ten were negative.

Forty-three persons received the Pasteur treatment, the major part of which was caused by an unknown mongrel which ran wild in the streets of Newark July 3rd. It was finally killed, and the autopsy showed that the animal was rabid. The territory traversed by this animal covered several miles of city streets and resulted in the biting of thirty-seven persons, some of them severely. All immediately received Pasteur treatment at the laboratory. In addition to these persons a number of dogs were bitten by the animal. As many as possible were caught and destroyed. To prevent a further development of rabies it was recommended to the Mayor, as head of the Department of Health, that a proclamation be issued requiring all dogs to be muzzled or held in leash. This proclamation was made public July 10th with effective results. A record of each case and its subsequent history is kept on file at the laboratory.

The following table shows the figures with regard to the number of dog bites and rabies cases in Newark since 1910.

	Persons Bitten	Animals Examined	Positive Cases	Negative Cases	Persons Given Anti-Rabic Treatment
1911	218	33	21	12	40
1912	350	28	13	15	26
1913	536	46	21	25	62
1914	612	43	17	26	41
1915	509	30	7	23	13
1916	566	38	3	30	3
1917	432	17	3	14	4
1918	506	42	20	22	31
1919	565	25	15	10	43
Total	4,294	302	125	177	203

Following is a report on investigations in rabies work

Persons bitten by dogs	550
Persons bitten by cats	7
Persons bitten by horses and other animals	8
Total number of persons bitten and cases investigated	565
Original inspections	853
Reinspections (dogs under observation)	516
Final inspections (dogs under observation)	463
Total number of inspections made	2,040
Cases reported by Public Department and investigated	175
Dogs bitten	79
Cats bitten	3
Dogs sent to pound and destroyed	109
Cats sent to pound and destroyed	5
Kennels inspected	54
Complaints investigated (dogs) miscellaneous	154
Hours in court	3½
Dogs' brains examined (Neg. 10, Pos. 8), total	18
Horses' brains examined (Neg. 0, Pos. 1), total	1
Dogs' brains examined (out of-town) all positive	6
Persons receiving Pasteur treatment	43

GLANDERS AND ANTHRAX

Glanders cases investigated and stables disinfected	4
Glanders cases, reinspections	5
Cases of Anthrax investigated	-
Samples of material bacterially examined for Anthrax	5

SPECIAL AND MISCELLANEOUS WORK.

During the year there were many forms of special work performed, which included:

The supervision of coal distribution in January and February during the coal shortage.

The investigating and vaccinating of 480 colored employees at Butterworth-Johnson Ice Works against smallpox.

A round-up, in co-operation with the police, of stray dogs investigating vented listeriosis cases reported by army officials.

Investigating typhoid fever outbreak at City Home, Verona, N. J.

Assisted in fighting epidemic by distributing gauze masks to barbers, dentists, etc., insuring disinfection and ventilation of jitneys and street cars; made trips to Research Laboratory in New York for serum information, and special work at the Emergency Hospital.

Crusade against spitters on trolleys to Port Newark.

Following table shows the amount of miscellaneous work of various descriptions performed:

Special inspections made	11
Sanitary complaints investigated	30
Sanitary complaint, reinspections	12
Ice dealers without licenses	97
Written notices served	64
Food and Drug complaints	1
Dispensary cases investigated	162
Influenza posters placed in jitneys and inspections	215
Inspections of moving picture theatres	14
Inspections of proposed chicken slaughter houses	4
Inspections of lodging houses	6
Inspections of scavenger dumping grounds	3
Samples of water from water shed for chemical analysis*	32
Samples of water from public bath for bacterial examination	27
Samples of water from wells for chemical analysis	2

* Started taking water sample of water sheds in September.

Respectfully submitted,

CHARLES E. CONRAD

Detailed Inspector.

ANNUAL REPORT OF DETAILED INSPECTORS
FOR 1918.*To Dr. C. V. Craster, Health Officer:*

DEAR SIR: We herewith submit our report for the year 1918:

Number of visits to water sheds	25
Number of visits to Cedar Grove Reservoir	24
Number of visits to Belleville Reservoir	24

SAMPLES OF CITY WATER SUPPLY TAKEN AT THE
FOLLOWING PLACES FOR BACTERIOLOGICAL
AND CHEMICAL ANALYSIS

	Bact.	Chem.	Total
Oak Ridge Stream	23	8	31
Clinton Stream	24	8	32
Kanouse Stream	24	8	32
Echo Lake Stream	24	8	32
Macopin Intake Inside of Gatehouse	24	8	32
Cedar Grove Reservoir Outside Inlet Gatehouse	24	8	32
Cedar Grove Reservoir Outside Outlet Gatehouse	24	8	32
Belleville Reservoir Inside Inlet Gatehouse	24	8	32
Belleville Reservoir Outside Outlet Gatehouse	24	0	24
Board of Health Building, Faucet City Dispensary	24	0	24
Prudential Insurance Co. Building	24	0	24
Verona, N. J.—Ice samples	1	0	1
Submarine Boat Corporation -Port Newark	9	1	10
67 Broome Street	1	0	1
Davenport Brook and City Camp -Oak Ridge	3	0	3
Butler, N. J.—water supply	12	0	12
Driven well and storage tank, 91-109 Oliver Street	2	1	3
Driven well, 4 Weston Avenue	1	0	1
Natural and artificial ice samples	12	0	12
Peckman River samples -Verona, N. J.	3	0	3

On the above date the toilets in Susquehanna R. R. trains were locked

Number of inspections made in water sheds	71
Number of calls received at water shed	51
Number of samples of well water taken from private wells in water shed	4
Number of samples taken from private wells in city	4
Number of samples of ice taken	12
Number of samples taken from wells and other sources in our city	37
Total number of samples taken	528
Number of days at water sheds	44 1/2
City Home, Verona, N. J.—water supply	3
City Home, Verona, N. J.—milk supply	3
City Alms House, Ivy Hill, water supply	2
Oak Ridge, N. J.—dug well	2
Sanatorium, Verona, N. J.—water supply	4

SAMPLES OF WATER TAKEN FROM PUBLIC SWIMMING POOLS.

No. 145 Howard Street	13
No. 32 Mercer Street	12
No. 53 Washington Street	12
No. 10 West Park Street	11
No. 107 Halsey Street	12
No. 3 Weston Avenue	2
City Bath, Patterson Street	3

SAMPLES OF WATER FROM WADING POOLS

Branch Brook Park	1
West Side Park	1
Weequahic Park	1

CITY HOME, VERONA, N. J.

Water supply samples	3
Milk supply samples	3
Ice supply samples	1
Peckman River	3

SANATORIUM, VERONA, N. J.

Water supply samples	4
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CITY ALMS HOUSE, IVY HILL, N. J.

Water supply	2
Total number of samples for bacteriological analysis	462
Total number of samples for chemical analysis	66

INSPECTIONS.

Number of licensed dance halls	51
Number of licensed picture theatres	43

Number of licensed open air parks	
Number of licensed lodging houses	
Number of special inspections made	4
Number of inspections made with other inspectors	125
Number of inspections made with Health Officer	8
Number of inspections made with members of the Board	
Number of investigations made out of the city	34
Lodging houses	17
Poultry slaughter houses	28
Bird stores	25
Cemeteries	1
Excursion boats	1
Dance halls	31
Motion picture theatres	51
Public bath house	1
Open air amusement parks and playgrounds	4
Dispensary cases investigated and colored housing	287
Hospitals visited	3
Official calls made on health matters	184
Parochial schools visited	9
Days in office for Health Officer	185
Days on special work	47
Hours in court	44

REINSPECTIONS

Special	
Lodging houses	
Poultry slaughter houses	
Bird stores	
Cemeteries	
Dance halls	
Motion picture theatres	
Open air amusement parks	
Public bath houses	

POULTRY SLAUGHTER HOUSES.

Applications for public poultry slaughter houses approved	1
Applications for public poultry slaughter houses rejected	1
Number of public poultry slaughter houses in the city	5
Number of private poultry slaughter houses in the city	

Respectfully submitted,

A. J. BRADY,

B. J. CAHILL,

REPORT OF CHIEF PLUMBING INSPECTOR.

To Dr. Charles F. Craster, D. P. H., Health Officer

DEAR SIR:—The year 1918 was ushered in with record-breaking cold weather, causing much distress and discomfort. The heating system at the Overbrook County Insane Hospital failed and the entire plumbing system was frozen up and rendered useless. The services of the members of our plumbing staff were offered to the State Freeholders by the Mayor and their request was accepted to restore the plumbing and drainage system. The inspectors, on reaching the hospital, divided the plumbers assembled there into squads, each squad being put in charge of a plumbing inspector and distributed for work in the various buildings. The entire plumbing staff were at Overbrook from December 31, 1917, until January 8, 1918, and during this time succeeded in supplying water to all fixtures in the institution.

Conditions in the city owing to the severe cold were likewise very serious, as a large percentage of houses were without water and efforts had to be directed to supply at least one place in each building where water could be had. The cold weather demonstrated very clearly the need for a more suitable piazza water closet. The short hopper type closets used on piazzas of tenement houses were found not properly protected from frost and could not be protected from its effects unless lead were turned in the water closet compartment. A recent call was made by a second class registered plumber notifying me that the short hopper water closet could not be installed in the future and by using the use of the long hopper type with the trap below the floor packed with mineral wool, the floor over water closet compartment to be made waterproof. This style of water closet is frost proof and will eliminate to a great extent the disadvantages of the piazza water closet.

The damage and inconvenience caused by the cold weather would not have been so great had there been a normal coal supply available. People could not keep fires from freezing for lack of fuel, although as a rule the plumbing in buildings in our cities is situated as to be protected from frost.

During the early part of the year the activity in factory construction and alterations continued and the total factory installations in many factories were vastly improved. The use of septic tanks in the unsewered factory sections has been continued and during the past year ten additional tanks have been installed, making thirty-five of these tanks in successful operation, and thus far none have had the sludge removed, the first tank installed being in operation since early in 1916.

During the latter months of the year plumbing activities were reduced when war work ceased, but it is expected that the coming year will see renewed activities in building construction, as our city is facing a serious shortage in housing accommodations, which can only be satisfactorily met by the construction of new homes.

The prospect of the schools dealing with prohibition brings to our attention the need of public comfort stations, which, in any case, are under construction and opening of buildings at this stage of time already advocated throughout the country. National Public Comfort Station for men has been organized and the erection of such buildings are being started. To understand the purpose of the Public Comfort Station, well lighted, well ventilated, comfortable, having convenient and comfortable in all respects, and being in a convenient place, if the conveniences necessary.

The roof was built above ground and supported by columns which were supported by piles driven into the soft mud. The roof was covered with a layer of straw and

newspaper stand, and other features which would be a source of revenue. The advice and help of this division in the selection of the type, the arrangement and ventilation of the fixtures and buildings will be cheerfully given.

	1918.	1917.
Plans Approved and Filed—		
New systems	445	
Additions	648	
	1,093	1,523
Plans rejected	46	97
Water tests	836	1,105
Smoke tests	393	435
Plumbing inspections	4,307	4,566
Special inspections	778	767
Sewer inspections	477	698
Final inspections	1,083	1,118
Plumbing permits issued	1,093	1,523
Sewer permits issued	195	318
Relay sewer permits issued	49	93
Cesspool permits issued	6	5
Privy vault permits issued	0	2
Violation notices served	47	77
Notices complied with	57	27
Complaints received	112	67
Notices served	64	67
Notices complied with	77	28
Law suits instituted	52	20
Law suits discontinued	21	6
Law suits pending	4	
Penalties imposed, total	\$145 00	
Hours in court	94	24
Hours on Examining Board	72	103
Master plumbers' licenses issued	310	320
Septic tanks installed	10	13
Law suits sent to Law Department second time	3	
Law suits against non registered plumbers adjourned without date	14	

Respectfully submitted,

CHARLES A. HALLGRING,

Chief Plumbing Inspector.

ANNUAL REPORT

OF THE

Division of Contagious
Diseases

FOR THE YEAR ENDING DECEMBER 31, 1918

OF THE

FOR THE YEAR ENDING DECEMBER 31, 1918

DEAR SIR, -I beg to submit the following report of the Contagious Division for 1918

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Tot	
January	—	8	2	1	2	—	—	—	—	5	—	—	—	—	—	—	129	
February	—	15	13	8	1	—	—	—	1	1	1	1	—	—	1	—	4	
March	—	18	17	25	1	18	—	—	5	—	1	16	—	1	—	—	—	
April	—	6	14	7	—	—	—	—	—	—	—	—	—	—	14	15	54	
May	—	1	—	17	16	11	—	—	10	1	—	—	—	8	5	8	187	
June	—	13	14	22	1	—	—	—	—	—	—	1	—	—	—	—	163	
July	—	9	23	23	1	—	—	—	—	—	—	—	—	12	11	—	—	
August	—	18	6	18	7	4	1	1	—	—	—	—	—	4	3	—	62	
September	—	9	19	8	—	—	4	3	—	—	—	3	8	—	—	4	84	
October	—	7	16	8	—	—	3	8	10	—	—	—	—	—	—	—	175	
November	—	7	2	—	—	—	8	3	—	—	—	—	—	7	—	4	19	
December	—	10	7	7	5	11	4	5	2	4	7	7	10	20	19	—	18	
Totals	—	138	149	204	129	111	86	138	105	102	5	87	104	119	171	102	96	1961

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
January	4	1	14	2	4	4	4	4	4	9	1	14	1	1	1	1	1
February	3	2	2	3	3	0	1	4	6	1	2	6	3	1	1	2	1
March	4	2	8	2	9	3	3	4	20	2	8	2	11	1	1	1	1
April	0	6	7	1	9	5	1	4	7	3	6	0	11	1	1	1	1
May	4						1						4	1	1	1	1
June																	1
July						1	4	1									1
August																	1
September						6	4					1					1
October			1	1	1	1	1		4		1						1
November																	1
December																	1
TOTALS	2	9	-	1	9	21	23	-	-	41	-	-	-	-	-	-	15

WHOOPIING COUGH REPORTED BY WARDS, 1911

WARD	1	2	3	4	5	6	7	8	9	10	11	12
1							4	6	57	24	26	6
2							3	6	22	16	16	8
3							8	7	1	41	10	16
4							26	3	15	31	8	44
5							18	19	19	24	1	44
6							9	13	16	18	15	13
7	7	11	2	3	11	13	11	19	22	10	21	
8	12	6	11	5		7	7	6	11	5	14	
9	1	11	14	1	7	2		2	6	1	1	
10	2	0	0		4	7	0	1	4	0	0	
11	0	2	1	2	2	2	1	1	1	2	1	
12	0	1	5	4	1	2	5	0	1	1	0	
Totals	48	55	44	64	57	112	80	166	199	188	188	

BRONCHO-PNEUMONIA REPORTED BY WARDS, 1911

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
January	12	6	11	1	5	4	0	5	8	21	3	22	13	7	3
February									9	8	4	8	6	5	6
March									3	7	3	13	13	5	7
April									5	25	1	24	5	20	1
May									1	16	1	19	3	5	3
June									0	6	2	7	2	3	1
July									0	3	1	5	4	1	2
August			4	3	5	4	6	5	1	4	0	2	2	5	1
September	4	3	3	4	9	9	16	27	12	14	3	19	22	18	8
October	38	34	1	9	17	18	15	31	35	14	17	6	25	19	9
November															
December															
Totals	90	111	8	18	90	143	116	188	161	143	8	210	100	187	89

WEEKS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	To
January																	
February																	
March																	
April																	
May																	
June																	
July																	
August																	
September																	
October																	
November																	
December																	
Totals	156	28	1	1	66	37	105	235	906	191	373	137	934	970	414	161	219

ERYSIPELAS REPORTED BY WARDS, 1918.

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January																	
February																	
March																	
April																	
May																	
June																	
July																	
August																	
September																	
October																	
November																	
December																	
Totals																	

INFANTILE PARALYSIS REPORTED BY WARDS, 1918.

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January			0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
February		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	1	4
April		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
June	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
July	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	3
August	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	2	6
September	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	1	0	0	0	3	1	0	1	0	2	0	1	1	0	0	4	19

Year	1910	1911	1912	1913	1914	1915	1916	1917	1918
Cases	7	23	11	24	9	19	142	35	12

EPIDEMIC MENINGITIS IN POLAND BY WEEKS, 1918

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL
January											0	0	1	0	2	0																3
February											1	0	0																			1
March											2	1	0																			3
April					2	2	1	1	0	2																						6
May				0	1	0			0	0	1																					2
June				0	1				0	0	1																					3
July				1	1	1	0		0	0	2																					6
August				0	1	0			0	0	0																					2
September				0	0	0	0	0	0	0	0																					0
October				0	0				0	1	0																					1
November				0	1				0	0	0																					1
December				0	0				0	0	1																					2
TOTAL				1	1				1	1	8																					22

During the year 1918, 142 cases of Epidemic Meningitis were reported. The following table shows the occurrence and high mortality of this disease since 1905.

YEARS	CASES	DEATHS
1905	116	60
1906	25	20
1907	22	38
1908	11	11
1909	8	7
1910	3	1
1911		5
1912	7	5
1913	17	8
1914	16	8
1915	17	14
1916	27	22
1917	66	43
1918	142	48

PURULENT OPHTHALMIA BY WARDS, 1918

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January				1	0	1	0	0		0	0	1	1	0	0	0	2
February		1		1	1	0	0		0	1		0	0	0	0	0	6
March			1		0		0	0	1	0	0	0	0	0	0	0	1
April			0		0		0	0	0	0	1	0	0	0	0	0	1
May		1	0		0		0	0	0	0	0	0	0	0	0	0	2
June		1		0			0		1	0		0	0	0	0	0	3
July			0		0		0		0	0		0	0	0	0	0	0
August			0		0		0		0	0		0	0	0	0	0	2
September			0		0		0		0	0		0	0	0	0	0	2
October			0	1	0	0		0	0	0		0	0	0	0	0	3
November			0	0				0	0	0	0	0	0	0	0	0	1
December			0	0			0	0	0	0	0	0	0	0	0	0	0
Totals			7		1		0	1	3	1		1	0	0	1		24

Year	1913	1914	1915	1916	1917	1918
Cases	9	31	27	17	24	24

CHICKENPOX REPORTED BY WARDS, 1918

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January			2		2	2	4	1	1	3	1	2	2	2	2	8	132
February		14	2	1	1					1	1	4	1	8	4	2	51
March		1	2	2	1	2			1	1		4	2	2	2	12	91
April		1	8	2										8	1	14	111
May		1	1		1		1	2		4		2	2	1	1	1	64
June			1				1	1		1				1	1	1	64
July		1	1	2					2	2			1	3	5	3	71
August											1	1					20
September									1	1	1	1					8
October									1				1	1		0	11
November													1	2	0	0	3
December							1							1	1	1	3
Totals		18					6	3	5	7	1	8	10	0	3	1	807

LYPHOID FEVER REPORTED BY WARDS 1948

[illegible]

DIPHTHERIA REPORTED BY WARDS, 1918

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
January	8	2	10	2	3	12	7	2	3	2		5	8	4		
February	9	2	7	2	7	14	5	5	8	4		8				
March	10	3	10	1	6	13	3	10	8	2	1					2
April	17	5	10	0	4	7	6	6	4	5	7				4	1
May		2	8	0	4	2	8	2	2	2		5		4		
June		3	2	6	0	1	7	5	2	4	2					
July	10	2	6	1	1	0	7	6	1	0						
August	10	1	8	1	2	1	2	4	0	1						
September	28	7	8	4	3	3	4	4	2	1						
October	14	2	7	3	5	0	3	5	4	3						
November	14	2	6	2	3	4	5	4	2	2						
December	8	1	11	2	6	4	6	2	9	5						
Totals											39	72	49	100	77	47

MUMPS REPORTED BY WARDS, 1918

[illegible]

MEASLES REPORTED BY WARDS, 1918.

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January	11	23	0	10	21	34	42	46	15	24	5	52	18	17	134	590	
February	29	6	58	1	5	44	57	122	63	412	9	38	31	18	81	714	
March	98	16	164	1	2	145	10	15	138	29	33	26	99	33	97	176	1455
April	146	42	21	30	9	78	80	88	138	58	68	10	80	271	137	41	11
May	18	40	14	1													1
June													25	4			29
July																	
August																	
September																	11
October																	11
November											1	0	1	1	0		4
December												0	1	0			
CASES	1							488	1,434	434	474	200	89	350	719	776	

SCARLET FEVER, DIPHTHERIA AND TYPHOID FEVER
SINCE 1895

YEAR	DIPHTHERIA CASES	SCARLET FEVER CASES.	TYPHOID FEVER CASES
1895	1,321	623	149
1896	1,261	537	106
1897	969	1,358	103
1898	1,019	478	179
1899	1,170	607	515
1900	1,417	708	320
1901	1,154	643	316
1902	985	557	259
1903	1,150	779	306
1904	1,653	1,649	210
1905	1,614	1,309	228
1906	1,273	616	336
1907	1,039	773	330
1908	806	1,500	181
1909	1,393	1,786	210
1910	1,585	1,664	178
1911	1,339	1,027	200
1912	1,098	698	193
1913	1,594	1,036	217
1914	1,490	1,696	250
1915	1,210	618	108
1916	923	835	126
1917	870	669	111
1918	974	515	87

SMALLPOX

During 1918 there were reported two cases of smallpox, one case in March, the other case in August, 1918. In 1917 there were reported two cases.

TRACHOMA

During the year 1918 there were reported twelve cases of trachoma, as follows: Three in the Second Ward, one in the Fourth Ward, one in the Fifth Ward, two in the Eighth Ward, one in the Eleventh Ward, one in the Twelfth Ward, one in the Thirteenth Ward and two in the Sixteenth Ward. In 1917 there were seven cases reported.

MENTAL DEFICIENCY AND EPILEPSY.

Under the State Law, Chapter 182, Laws 1912, physicians are required to report all cases of mental deficiency and epilepsy. The following table gives the reported cases:

	1913	1914	1915	1916	1917	1918	Total
Mental Deficiency	109	61	79	73		27	354
Epilepsy	42	62	32	57	45	32	271

GERMAN MEASLES REPORTED BY WARDS, 1918.

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
January	1	2	1	0	2	0	2	2	3	1	3	0	0	0	0	3	20
February	4	2	8	1	0	5	3	17	4	1	10	1	5	6	1	10	78
March	1	1	14	2	4	7	3	21	7	0	14	3	14	9	4	11	115
April	7	2	11	5	2	1	2	13	9	3	11	7	6	14	1	10	104
May	3	2	12	2	5	6	3	7	4	6	7	3	16	13	3	9	103
June	1	0	0	2	0	0	2	0	0	1	1	0	2	0	1	1	11
July	0	0	3	1	1	1	0	0	5	0	0	1	2	1	1	3	19
August	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	4
September	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
October	1	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	4
November	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	4
December	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	10
Total	27	17	67	17	27	17	27	67	45	16	71	5	46	12	49	474	

OTHER DISEASES

During 1918 there were reported:

Malaria	28 cases
Puerperal Fever	6 "
Puerperal Septicaemia	13 "
Dysentery	9 "
Paratyphoid	2 "
Mercury poisoning	1 case
Lead poisoning	25 "
Arsenic poisoning	2 "
Tetanus	11 "

INDUSTRIAL DISEASES

Compressed air illness	1 "
Picric acid	1 "
Anthrax	1 "

VENEREAL DISEASES

Gonorrhoea	161 cases
Syphilis	105 "

INFLUENZA.

The prevailing epidemic of 1918 was influenza, causing a considerable increase in our mortality. Our cases were reported from September, 1918, as follows:

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
September	20	21	32	9	21	28	6	44	38	24	18	17	56	46	15	40	435
October	1910	2085	2962	511	2216	271	1400	111	1387	84	11	8	11	40	24	2068	24361
November	217	64	342	8	20	178	18	1	24	1	168	115	11	13	28	14	2363
December	119	101	162	51	56	146	188	348	200	46	2	1	80	64	10	306	2340
Totals	5761	3117	3988	610	2288	498	168	1764	288	3078	1379	2430	831	121	241	171	50714

WARD DISTRIBUTION OF DIS

FOR YEAR 1918

FOR YEAR 1918	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Scrub Pine	138	44	28	14	20	21	23	29	55	15	41	5	63	47	36	29	615
Scrub Pine	82	20	53	14	20	21	23	29	55	15	41	5	63	47	36	29	2,130
Scrub Pine	68	85	142	64	103	110	116	136	199	106	170	126	254	127	86	251	2,627
Scrub Pine	329	111	106	56	205	110	116	136	199	106	170	126	254	127	86	140	2,627
Scrub Pine	44	11	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Scrub Pine	8	7	19	18	8	18	11	13	11	17	12	20	19	17	3	14	210
Scrub Pine	1	0	0	0	8	1	1	2	1	2	1	2	1	1	0	4	1
Scrub Pine	9	3	13	4	11	1	1	4	2	8	5	10	11	4	6	8	1
Scrub Pine	5	0	7	1	1	1	1	1	1	3	1	1	1	0	0	1	24
Scrub Pine	26	43	123	9	37	21	30	58	71	25	22	28	106	50	33	110	807
Scrub Pine	13	8	2	3	5	1	1	1	4	0	3	2	5	3	4	2	87
Scrub Pine	134	31	97	18	45	10	30	52	47	29	52	49	100	77	47	68	974
Scrub Pine	71	62	185	57	48	11	50	199	225	58	130	90	147	123	88	212	1,825
Scrub Pine	484	131	640	132	417	103	131	488	519	434	439	640	909	640	350	708	7,779
Scrub Pine	18	10	52	13	14	1	15	62	36	14	46	15	50	46	12	49	474
Scrub Pine	0	3	6	2	0	1	1	2	0	0	1	1	1	0	0	2	12
Scrub Pine	0	2	1	2	2	1	2	1	4	0	1	2	5	0	1	3	26
Scrub Pine	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Scrub Pine	2	1	0	0	0	1	2	1	0	0	0	0	0	0	0	0	7
Scrub Pine	1	1	2	0	0	1	0	0	0	2	1	2	1	0	1	1	13
Scrub Pine	1	2	1	0	1	1	1	1	2	1	1	1	2	5	0	1	22
Scrub Pine	1	0	0	0	0	1	1	1	0	1	0	3	3	0	0	0	9
Scrub Pine	2	3	0	1	2	1	2	3	6	6	1	3	6	4	3	0	32
Scrub Pine	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1
Scrub Pine	1	0	0	0	0	1	0	0	0	3	0	2	2	0	2	0	11
Scrub Pine	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Scrub Pine	0	3	0	4	2	0	0	0	1	3	0	4	1	6	0	1	25
Scrub Pine	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2,764
Scrub Pine	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Scrub Pine	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	2
Scrub Pine	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Scrub Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Scrub Pine	12	23	8	8	3	1	3	7	3	10	6	2	3	3	7	4	165
Scrub Pine	8	20	17	18	9	10	11	14	17	17	17	17	17	17	17	17	161

Respectfully submitted,

J. W. M.

Superintendent of Public Affairs

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PARTMENT OF PUBLIC AFFAIRS

REPORT OF THE DISINFECTING DIVISION

Newark, N. J., January 1, 1919

To Dr. Charles F. Craster, Health Officer

DEAR SIR: I herewith submit to you the report of the Disinfecting Division for the year 1918.

The work of this division was increased to a great extent during the year owing to an epidemic of measles during the first six months and an epidemic of influenza during the months of October, November and December, the latter being one of unusual magnitude, in fact so great that the staff of the division was unable to handle the large number of cases reported.

The staff of the Sanitary Division was requested to aid and the assistance of the Police Department was likewise sought to take care of the increased work which this epidemic necessitated.

This assistance was readily granted by these two bodies and the results accomplished demonstrated that cooperation willingly and cheerfully given can solve difficulties that could not otherwise be effectively overcome.

The supervision of the communicable diseases was more intensively followed up than in former years, owing to the fact that the inspectors of this division were instructed to and are insisting absolutely on isolation being practiced. There is sufficient evidence to show that the rules of this department are rigidly adhered to and the fact that only nine persons were removed to the Soho Hospital by warrant of law indicates that the advice and instructions given by the inspectors of this division are beginning to accomplish the results that we have been striving for.

It is our hope and endeavor that during the coming year greater and better results in the home control of the communicable diseases which this division supervises will be attained.

DISINFECTING DIVISION

MONTH.	NUMBER OF CASES										NUMBER OF DISINFECTATIONS										MISCELLANEOUS									
	Smallpox	Measles	Scarlet fever	Cough	Diphtheria	Whooping cough	Scarlet fever	Measles	Smallpox	Other	Smallpox	Measles	Scarlet fever	Cough	Diphtheria	Whooping cough	Scarlet fever	Measles	Smallpox	Other	Smallpox	Measles	Scarlet fever	Cough	Diphtheria	Whooping cough	Scarlet fever	Measles	Smallpox	Other
Jan	1	300	8	2	0	1,507	45	60	110	1	9	24	0	274	8,800	32	11	748	27											
Feb	0	190	1	0	0	1,141	76	55	112	0	9	10	0	262	12,107	18	17	770	10											
Mar	4	18	8	1	1	962	106	55	115	3	10	20	1	310	15,781	16	24	86	2											
Apr	0	280	2	2	0	1,717	103	65	135	1	24	33	0	297	10,997	52	35	910	27											
May	1	29	0	0	0	1,503	70	69	120	0	11	21	0	297	10,997	52	35	910	27											
Jun	2	23	0	0	0	1,145	50	41	115	2	4	11																		
Jul	2	971	4	1	0	562	44	23	127	3	12	13																		
Aug	0	179	1	10	1	307	54	22	83	4	10	22																		
Sep	3	71	1	1	0	334	53	8	63	4	1	8																		
Oct	0	43	4	3	0	1,470	23,162	99	18	66	0	1	41																	
Nov	0	47	4	0	0	3,851	4,023	75	16																					
Dec	0	37	0	2	0	2,543	2,785	77	28																					
Total	974	515	7779	474	19	2135	69	103	2	29,704	41,778	884	67																	

Below is a detailed account of the work performed by the division compared to the preceding year, so far as its activities can be set forth by tables and figures:

HOUSES QUARANTINED

	1917	1918
Diphtheria, including membranous croup (placarded)	870	974
Scarlet fever (placarded)	669	515
Measles (placarded)	2,063	7,779
Infantile paralysis (placarded)	35	19
Smallpox (placarded)	2	2
Epidemic meningitis (placarded)	66	105
Typhoid fever (not placarded)	111	466
Whooping cough (banded)	3,625	2,137
German measles (not placarded)	2,905	474
Spanish influenza (not placarded)	0	29,714
	10,346	41,773

* Does not include 18 cases reported from hospitals of out of town patients.

DISINFECTIONS.

Diphtheria	770	884
Scarlet fever	572	463
Tuberculosis	1,345	1,214
Infantile paralysis	30	18
Epidemic meningitis	67	101
Special	182	245
Smallpox	2	2
	2,968	2,927

MISCELLANEOUS

Visits and reinspections	96,939	139,435
Nuisances found	206	244
Funerals supervised	101	1,373
Number of rooms fumigated	7,985	9,016
Control tests	107	236
Hookworm reported	17	0

Respectfully submitted,

THOMAS MULLIGAN,

Chief.

ANNUAL REPORT

OF THE

Food and Drug Division

FOR THE YEAR 1918

ANNUAL REPORT

OF THE

Food and Drug Division

FOR THE YEAR 1918

Dr. Charles V. Craster, Health Officer, Department of Health, Newark, N. J.:

DEAR SIR:—Herewith you will find the report for the year 1918 of the Division of Food and Drugs

Respectfully submitted,

SAMUEL G. SHARWELL,
Chief Food and Drug Inspector

DAIRIES.

The Food and Drug Division was not able to score more than the dairies in the immediate vicinity of the city which produce our raw milk. The following is a record of this work:

Dairies rescored	654
Dairies re-inspected not scored	168
Dairies inspected not scored	4
New dairies scored	301

TABLE OF MILK EXAMINATIONS

Sealed chemical samples taken	1,286
Chemical samples below the standard	113
Bacterial samples taken of milk	2,565
Bacterial samples above required amount	876
Preliminary samples taken	949

(Of the 2565 bacterial samples of milk taken, 36 were found to contain Streptococci and Pus. Of the 309 samples of milk taken from the Fairfield Dairy Co. for Streptococci and Pus, 13 were found to contain the same.)

Total number of milk samples taken	488
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On the 1st of September, 1918, this department took over the milk licenses.

Heretofore this department made out the applications and the licenses were granted by the Sanitary Department. During September, October, November and December no licenses were granted as follows:

Wagon licenses	21
Store licenses	100

Money received for licenses during the four months:

Wagon licenses	\$ 4.6
Store licenses	20.4

According to the milk ordinance, amount of bacterial allowed for each grade of milk is as follows:

A Raw	100,000
Certified	10,000
A Pasteurized	30,000
B Pasteurized	50,000

The following is a list of the dealers supplying milk during the year 1918, source of supply, number of samples taken and average counts of each dealer:

DEPARTMENT OF HEALTH

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A RAW MILK SUPPLY.

Name	Address	Inspector	Amt. Sold Daily	No. Samples Taken	Bact. Counts Average
ower, Geo	34 Lyons Av, Irv	L Borinski	301	18	13,305
elbius, B	46 Salter Pl, Bloomfield	Ow	74	4	13,500
elde Bros.	Stuyvesant Av and 40th St, Irv.	Ow	300	17	15,111
ude, Fred	Stuyvesant Av, Union	P Feins	180	7	17,852
hrhardt, Henry	Vauxhall Rd, Union	Ow	210	14	21,214
haphman Bros	Maple Av, Lyons Farms	H H Itz Bert Chapman, Al. Katz	550	37	24,783
owe, George.	Upper Broad St, Brook- dale	Ow.	4	21	27,285
orer, Geo.	Liberty Av, Lyons Farms	Ow	350	13	30,000
ckert, Gus	90 Avenue L	L Borinski	170	16	33,312
eindle, Leonard	154 Frankfort St.	Ow	40	20	36,950
ollivan, Jas	196 Heller Parkway	Ow	240	24	38,475
enna, Anna	57 Dorcas Av.	Ow	200	15	39,400
ckert, Julius	121 Paris St	Ow	260	29	39,793
ecker, H.	Roseland, N. J.	Ow	300	28	40,125
Field Dairy Co	Montclair, N. J.	Ow	120	19	41,315
esler, Jacob	153 Pains Av, Irv	Ow	180	8	46,250
inters, Louis	106 Park St	Ow	84	21	47,714
rueger, Geo.	Stuyvesant Av, Union	F Krueger, F Jarvis	300	28	48,928
iggers, E	54 Eagle Rock Av, West Orange, N. J.	Ow at Branchville and Newton	70	15	63,000
hilhower, A	58 Union Av, Irv	P Feins	240	22	69,181
arney, Geo	Hillside Av, Hillside	Ow	200	4	71,750
ckel, Fred	1043 Clinton Av, Irv	L Borinski	250	3	73,333
aer, E	17 Richmond St	Ow	60	20	73,650
ess, Morris	482 Grove St, Irv	Ow	120	17	81,354
arrison, Wm	982 So. Grove St, Irv	Ow	125	6	85,000
oung, Ed	27 Tiffany Pl, Irv	Geo Hastings	500	25	85,140
ohen, Jacob	250 Stuyvesant Av.	Ow	100	16	92,500
nk Max	124 Chestnut Av, Irv	L Borinski	160	1	95,964
huert, M	468 Chancellor Av, Irv	P. Feins	210	22	100,630
ei el, M	119 Garrison St.	Ow	155	20	107,900
owell R	1179 Stuyvesant Av	V / mresk.	101	24	108,000
ede, J	63 Gouthard St	Ow	150	2	12,454
atke A	67 Margaretta St.	Ow	250	18	113,454
olf, J	89 Mt. Vernon Av., Irv.	Pure Milk Farms	300	21	114,666
aley, H	468 Chancellor Av, Irv	P. Feins	200	19	116,730
rand Chas	55 Florence Av., Belle- ville	Ow	260	17	117,646
artlaub, F	79 Franklin Ter, Irv	P Feins	250	18	118,055
oelck, J	188 Jelliff Av	Ow	100	23	120,695
orer, Geo	12 Springdale Av, East Orange	Ow	350	14	125,355
asonius, Wm	Chestnut Av, Lyons Fms	A Mastonius	160	12	129,583
ewis, Abe	537 Springfield Av	Ow	45	24	132,500
teffeseck, J	Vauxhall Rd, Union	Ow	130	20	138,700
rueger, Gus	55 Amsterdam St	Ow	180	18	144,277
ee, Samuel	270 Chancellor Av	Ow	180	16	148,312
entr, Jacob	Hamburg Pl Rd	Ow	1	18	148,388
artin, John	158 N. Main Av, East Orange	Ow	225	14	150,000
tager, Gertrude	622 Nyc Av, Irv	J Dool	160	9	150,000
te Philippine Tony	685 N. 5th St	Ow	1	9	155,476
rick, Fre.	19 Rodwell Av, Irv	Ow	45	7	163,100
umacher Geo	Union Av, Union	Ow	650	22	170,136
chmidt John H	40 Boylen Av, Hilton	F Jarvis	160	26	173,769
lanopole, Max	62 Berkshire Pl, Irv.	P Feins	300	20	174,250
offman, Walter	463 Chancellor Av, Irv	L Borinski	200	20	174,250
orer, A F	Union Av, Union	Kubach	40	6	197,187
chmidt H H	599 Irvington Av, South Orange	L Borinski	160	20	203,700
eimar Ale	256 Hillside Av, Lyons Farms	Goldberg & Goldstem	200	21	205,142

CERTIFIED BY

A PASTEURIZED

DEPARTMENT OF HEALTH

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B PASTEURIZED.

Name	Address	Producer	Amt. Sold Daily	No Samples Taken	Bact Counts Average
Jersey Milk Co.	70 S Sixth St	Jersey M & C Co Lemon, Pa	300	2	1,500
Arden's Farm Prod.	25 Fourth Av	Borden's, Papakating	1,000	5	12,000
Arden's Farm Prod.	5 Evergreen Av	Geo Robinson, Jutland	200	10	16,900
Arden's Farm Prod.	2 Pierce St	S Lernerman, Irvington	90	2	25,000
Arden's Farm Prod.	5 Clinton Pl	Newark Milk Co., Newark	50	14	25,286
Arden's Farm Prod.	323 Jelliff Av	W Vanatta, West	200	17	31,764
Arden's Farm Prod.	60 Elm Rd	W Vanatta, West	180	13	36,461
Arden's Farm Prod.	38 Melville Pl, Ir	Portal	140	10	37,700
Arden's Farm Prod.	63 S Fourteenth St	Waterville, N Y	2,000	12	38,083
Arden's Farm Prod.	73 Elizabeth Av	Milk is received from receiving stations and suburban dairies outside of this city in the raw form and pasteurized at 273 Elizabeth Av	1,400	19	46,526
Arden's Farm Prod.	Quintman St	Geo N Rand Co., C. W. Vanatta, West Portal	600	14	48,428
Arden's Farm Prod.	359 Hawthorne Av	Geo Robinson, Jutland	230	17	53,176
Arden's Farm Prod.	12 Bergen St	C W Vanatta, West	180	21	56,714
Arden's Farm Prod.	57 Chester Av, Ir	Milk is received from receiving stations and suburban dairies outside of this city in the raw state and pasteurized at 87 Chester Av	600	11	61,000
Arden's Farm Prod.	Liberty Av, Lyons Fms	Ias Wyckoff, Sunnyside	120	22	74,466
Arden's Farm Prod.	189 Livingston St	Geo Robinson, Jutland	375	18	74,666
Arden's Farm Prod.	111 R.	Interstate M & C Co., W Vanatta, West Portal	700	26	82,192
Arden's Farm Prod.	353 Morris Av	Jersey M & C Co., Jersey City	15	15	86,000
Arden's Farm Prod.	Port Lydia, N Y	Robinson, Jutland	1	1	86,666
Arden's Farm Prod.	38 Hunterdon St	Janssen Stillwater, N Y	20	20	112,157
Arden's Farm Prod.	66 Parker St	Geo Clark Lebanon	22	22	112,157
Arden's Farm Prod.	500 Avon Av	Geo Robinson, Jutland	14	14	112,157
Arden's Farm Prod.	181 Spruce St	Geo Robinson, Jutland	2,500	28	113,607
Arden's Farm Prod.	1014 Nassau St	Munroe (shipped in raw state and pasteurized at 1014 Nassau St)	700	17	113,235
Arden's Farm Prod.	Interstate M & C Co., 273 Elizabeth Av		700	17	113,235
Arden's Farm Prod.	25 Fourth Av	Pine Bush N Y	8,000	15	126,000
Arden's Farm Prod.	13 N Broad St Lyons	Ias Wyckoff, (Linton)	120	19	130,736
Arden's Farm Prod.	Milk Irvington	Seiler Bros	140	10	151,500
Arden's Farm Prod.	33 S Fourteenth St	Branchville	4,500	21	164,476
Arden's Farm Prod.	78 Berkshire Pl	W Vanatta West	170	15	169,000
Arden's Farm Prod.	138 Hunterdon St	Portal	500	8	172,175
Arden's Farm Prod.	390 Orange St	Janssen, Whitney Pt	550	18	174,944
Arden's Farm Prod.	353 Morris Ave	Jersey M & C	2,100	10	183,250

Name Address
 Beardsley, W 50 Second Ave
 Emposimato, Aug 71 Monroe St
 Lemmerman, Samuel M 311 Rd Irvington

184 W. Knincy
 167 Clifton Ave
 Manzo, Achille 10 Calumet St
 Webersmueller, C 311 Runyon St
 Schmidt, Geo 582 S Nineteenth St
 Pierce, 4 Karl St
 Bunger, Fred 50 Bloomfield Ave

Greenfield, J 61 Prospect Av, Irv
 Rabstein, Sam 119 Bergen St
 Borden's Farm Prod 5 Fourth Av
 ucts Co 37 Hunterdon St
 Schroeder,
 Max, Abraham 138 Hunterdon St
 Seder Bros, Inc 110 Somerset St

Bower, H E Three Bridges
 Huyler, John 30 Newark Av Bldg
 Kaplan, Jacob Morris at 1 Burnett Ave,
 Union
 Max, Abraham 138 Hunterdon St
 Stoppel, Wm N Burnett and Morris Ave,
 Union

M & C
 B
 St
 St
 M & C
 St

P
 St
 M & C
 St
 B
 St
 So. Columbia, Mercer
 ville, Interstate M & C
 273 Elizabeth Av

ceiving stations at 1 sub-
 urban fauces outside of
 the city
 Interstate M & C Co,
 273 Elizabeth Av
 St. nissen, Whitely

Whitney Pt., N Y
 Farmer's Exchange Three
 Bridges
 M & C
 V

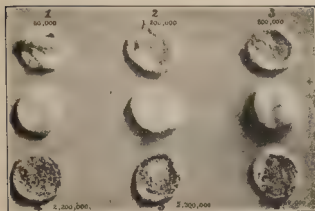
Three Bridges
 Van Hecard 1 Bridges B
 Farmers Exchange Three
 Bridges
 Jersey M & C Co,
 1st Wyckoff Union
 Total Average

66.1
 64
 1.90

160

1.1

1.1



DIRT SEDIMENT TESTING.

A FACTOR IN OBTAINING CLEAN MILK.

The cotton discs, a photo of which is shown above, are used to determine the cleanliness of milk. One pint of milk has been strained through each disc except the center ones, which have not been used.

These show the original amount of dirt plus the contamination or bacteria which have acquired during the process of milking or handling. It is a well-established fact that dirt in milk is, as a rule, associated with bacterial contamination.

These bacteria are introduced into the milk by the particles of dust, manure, skin and feed to which they are attached, and milk contaminated in this manner may become a serious menace to health. Thus, septic sore throats, tuberculosis, diarrhea, diseases of infancy, dysentery and typhoid fever have been spread by milk and many epidemics of these diseases have shown the necessity of insisting on the enforcement of laws, compelling the production of a clean, safe milk supply.

... by the natural bacteria, but the ...
 ... great number of farmers is the ...
 ... keeping the dirt out of the ...
 ... and pasteurized ...
 ... with his ... for
sterilization.

... the dirt may find its way in ...
 ... or dusty barns, dust ...
 ... leaves from *unclean* men ...
 ... and then the milk ...
 ... from *unclean* hands ...
 or clothing of the milk handlers.

This department is now using the **sediment tester** at the ...
 ... demonstrates
 to the farmers the dirt contained in the milk.

... and ...
 ... taken from the farm
 ers at nine different creameries. Of these, 25 were filthy,
 50 very dirty, 95 dirty, 85 fairly clean and 165 clean.

On re-inspections of the same places, 433 samples were
 taken, of which 6 were filthy, 19 very dirty, 28 dirty, 120
 fairly clean and 260 clean. This, as you will notice, shows
 ... milk during the
 six months' time that this work has been carried on.

This has proven to be of great advantage, for on re-
 ... in the ...
 ing of milk and we are enabled to show the farmer as soon
 as the milk is received at the creamery under what condi-
 tions his milk is produced.

The insoluble dirt in milk can readily be seen on the cot-
 ton discs of the sediment tester or by the use of the cen-
 trifugal machine.

It is true, of course, that dirt is not always the cause of high bacterial counts, and dust, for instance, may be almost sterile, while manure is alive with harmful bacteria.

Bacteria multiply enormously at temperatures over fifty degrees Fahrenheit, therefore it is necessary that all milk should be cooled immediately to a low temperature.

Mixed night's milk which has not been kept at a low temperature should not be mixed with morning's milk. This would cause the growth of bacteria which produces lactic acid out of the milk-sugar and cause the milk to sour.

Bacteria cannot be filtered out of milk. Dirt and bacteria associate together.

Dirt should be kept out of milk so as not to require filtering, for clean milk needs no straining, and leaves no dirt on the straining cloth. The clean dairymaid does not use the strainers and believes that they are only needed for dirty dairymen.

If strainers should be used, fine cheesecloth, sixty-four meshes to the inch, may be useful for the reason that it can be washed and sterilized after each milking.

The finest strainer used by dairymen removes only the very coarse dirt. Four hundred bacteria could be placed in a row in the space between two threads of this cloth.

Fine absorbent cotton, fastened in a holder, has been found to be a good way of filtering milk. The cotton cannot be used again and new ones may be purchased at a very small expense and thrown away after each milking.

FOOD SUPERVISION.

Inspection of meat at the wholesale houses and in the various retail meat stores is carried out by one veterinarian and one meat inspector.

The following is a list of the activities under this head

MEAT, POULTRY AND VEGETABLES.

Beef	274
Steers	808
Cows	3277
Lambs and sheep	548
Calves	4753
Hogs	153
Reactors inspected at slaughter	68
Dressed calves inspected	93
Fish markets and stand	1862
Poultry	7
Vegetables	4
Carcasses Inspected:	
beef	345
Lambs and sheep	149

In addition to these inspections, Dr. Werner Runge, vet-

erinary surgeon, has been in charge of the inspection of the stock.

Cattle	1,387
Sheep	2,749
Calves	9662
Hogs	2478

Of these, nineteen were condemned as unfit for food, thirteen cattle, four calves and two sheep. Dr. Runge also investigated three cases of glanders.

It has been determined that all cows producing milk to be sold for Grade "A" Raw in this city must be tuberculin tested annually, and all added cows retested after two months must be retested, it is necessary

inspections made	110
Cows checked up during 1918	5542

Out of 2,620 cows tuberculin tested, 88 were found to be reactors, or 3 + per cent.

Previous to this year, even after reactors were reported to this department by the veterinarians making the test, we found that reactors were not slaughtered by unscrupulous cow dealers, as we have had cases where these cows were sold from one dairy to another.

Arrangements were made with the State Department of Agriculture whereby immediately upon receipt of word to this department from a veterinarian of a certain cow being a reactor, we advised the State Department of Agriculture, who then took charge of the cow and reported to us when and where same was to be slaughtered.

VISITS MADE TO PLACES WHERE FOOD WAS PREPARED AND SOLD
FOR THE PURPOSE OF ENFORCING THE STATE LAW AND
SECTIONS OF THE SANITARY CODE CONCERNING
FOOD

The following table indicates the character of the work

Slaughter houses inspected with State Inspector	6
Centre Market (mostly daily)	436
Wholesale beef houses	1,660
Butcher shops inspected	1,189
Butcher shops reinspected	16
Commission houses	6,503
Bologna kitchens	152
(Wholesale and retail This would be small places where bologna is prepared.)	
Delicatessen stores inspected	6
Drug stores inspected	1
Macaroni shops inspected	4
Food and drug samples taken	120
Restaurants inspected	370
Restaurants reinspected	1,126
Groceries inspected	261
Groceries reinspected	170
Confectionery stores inspected	210
Confectionery stores reinspected	59
Bakeries inspected	324
Bakeries reinspected	131
Candy and pool parlors	5

Cheese stores	
Coffee wholesale house	
Coffee and pool parlors	
Cheese factories inspected with State Inspector	
Food and drug places inspected with State Inspector	
Bottling plants	
Milk samples taken with State Inspector	
Pasteurizing plants inspected	
Creameries (six of these being pasteurizing plants)	
Food and drug samples taken	
Food	
Complaints investigated	11
Complaints verified	11
Notices served (form notices)	11
Letters sent after inspections made	
Cases in for suit	
Hours in court	
Letters sent to creameries after inspections made	
Time, clerical work in office, hours	11
Receipts of Food and Drug Department for cow tags and milk bottle emergency caps	\$431.56

One hundred and twenty places were found to be O. K. after inspections made and notices served, on re-inspections.

Confectionery stores
Grocery stores
Bakeries
Butcher shops

Total

RESTAURANTS

During the year a new restaurant score card was adopted, which has shown a great improvement over one formerly used.

Our new score card goes more into detail of scoring dining rooms, kitchens, apparatus, washing and toilet facilities, as to plumbing and equipment.

There were 310 new restaurants scored and 160 notices served. Three hundred and sixty-seven notices were served when violations existed, and of these 247 made the required improvements. Fifteen went out of business or sold to new owners.

Of the 124 restaurants receiving approval certificates, 10 scored over 95 per cent, and 114 scored over 70 per cent.

In most cases, this approval certificate granted by this department has been framed and displayed in the restaurants, showing that the place has never been found by the inspector in an insanitary condition.

This certificate has led to making a great improvement and a few used this as a method of advertisement.

The dining room, which is always visible to patrons, has been the best place in the restaurant, and the kitchen the small store room, but through our efforts in the compulsory installation of sanitary toilets and plumbing, the removal of the old, torn wooden dishwashing trays, the cement or impervious flooring, the removal of the papered ceilings and walls, which have been replaced by metal, tile or plaster painted so it can be washed and kept clean, the separate compartment for meats and fish in the ice boxes, a clean, washed, individual drinking glass, and the protection provided to prevent the exposure of foods has put the kitchen on a par with the dining room and has removed a dangerous source of infection and made those places 100 per cent safer for the public who are compelled to patronize them daily.

PRETZEL BRIEF

Through co operation with the Police and Sanitary Departments weekly red velvet and white soft rolling pretzels on the main streets of this city.

The baskets were seized and pretzels destroyed, but until the end of the year this did not have very much effect upon stopping this violation.

service. All summons on the parents, who were compelled to attend court and were censured by the judge. This showed better results.

Work in the above connection is still being continued, with hope of far better improvements.

CO-OPERATION WORK

Food Administration

On account of the shortage of coal throughout the beginning of the 1918 year, the Health Department endeavored to secure the coal straight from the coal pockets of the rail roads and sold to consumers at cost price. Employees of this department took part in this work of distributing the coal and seventeen and one half days were given to the said purpose.

Food Conservation

During the year this department co-operated with the United States Food Administration at all times.

One grocer was found hoarding 10,000 pounds of sugar. At that time—during the month of February—sugar was in scarcity. The sugar was seized. Eleven barrels were delivered to the Child Hygiene Division for distribution to the public. Ten of these containing 100 pounds each were delivered to the City Dispensary for distribution among the druggists not having any sugar for medicinal purposes.

During the administration of the Food Conserving Department, forty-seven bakeries were found violating the substitution law in regard to their rolls, bread and cakes. Notices were served upon them.

Several places were inspected on account of the hoarding of chickens to save the eggs. This was made a law for the first three months of 1918.

Under the Federal laws, a food and drug inspector in a municipality has the same authority as does the Federal Food and Drug Acts as the Federal inspector in that municipality. A number of samples of olive oil, condensed milk and weevilly beans were taken. The official samples are taken by inspectors of this department, evidence is secured and the government laboratory makes the analysis. Through the co-operation of the Food and Drug Department of the United States Government, Eastern Station at New York City, a great deal of work has been accomplished.

COURT CASES.

Fines for violations of milk	\$185
Fines for violations of food and drugs other than milk	15
Total	\$290
Milk cases dismissed on payment of costs of court (\$1.85 costs of court)	18
Food and drug cases other than milk dismissed on payment of costs of court	14
Milk cases withdrawn	3
Drug cases withdrawn	1
Food cases tried (decision reserved)	1
Food cases pending (summons not served)	1
Stands put out of business by having their foodstuffs confiscated on account of insanitary conditions and not proper places for the handling of foodstuffs	5
Cases never came up during above year, but which may come up during 1919	15

RECORD OF THOSE APPEARING AT FOOD AND DRUG HEARINGS
FOR VIOLATIONS.

Number of milk dealers appeared at hearings for milk violations	178
Milk dealers had their licenses revoked to sell milk on account of violations. (This motion was later rescinded)	3
Grocers appeared in reference to milk violations	26
Butchers, bakers, druggists, grocers and restaurant proprietors appeared in reference to violations of the State Sanitary Act and the Sanitary Code	46
Total number appeared at hearings	253

THE FOLLOWING WAS CONDEMNED DURING 1918

GOODS OTHER THAN MEAT

14 Bags of "weevilly" beans	4 1-lb. Milkomit
4 Lbs coffee	rine
3 Boxes macaroni	1 Car of cabbages
1 Box ginger snaps	2 Lbs of all spice
25 Bags Blue Rose rice (100 lbs net)	50 Lbs raisins
1 Barrel of prunes and cereals	25 Lbs prunes
25 Pieces of exposed water-melon	1 Box vanilla cakes
2 Bags of cornmeal	45 Cans of peppers, pears and peas
1 Barrel of peppers	3 Sacks of onions
2 Crates of eggs	1 Barrel of apples
3 Crates of cabbages	4 Barrels of lettuce
9 1 lb boxes of Buttercup oleomargarine	27 Crates of cucumbers
6 1 lb boxes of Cream-Nut oleomargarine	67 Crates of frozen celery
7 1 lb Pansy Brand oleomargarine	2 Large cans of pretzels
	45 Pretzels
	46 Baskets of pretzels
	75 Boxes of apples
	632 Lugs of grapes
	85 Boxes of grapes
	18 Boxes of red grapes
531 cases of condensed milk were condemned out of 1,090 cases.	
441 cases of condensed milk were condemned out of another lot of 850 cases.	

MEAT AND POULTRY

6 Hogs	347 Sets of lungs
76 Heads	15 Udders
7 Sheep	14 Calves
1 Hind quarter of a cow	18 Fore quarters of cows
4 Tongues	33 Livers
36 Pieces of lard	21 Intestines
132 Lbs of beef	7 Reactors
2019 Lbs of poultry	1 Box of spare ribs
115 Lbs of old cocks	18 Turkeys
1 Box of pork loin	51 Lbs of turkey
80 Lbs of chickens	12 Barrels of turkeys
4 Barrels of ducks	14 Bags of beef hearts
12 Chickens (about 51 lbs)	14 Lbs of cottage ham

ANNUAL REPORT

OF THE

Chemist

FOR THE YEAR 1918

ANNUAL REPORT

OF THE

Chemist

FOR THE YEAR 1918

To Dr. Charles V. Craster, Health Officer:

DEAR SIR: I submit herewith my annual report for the year ending December 31, 1918.

The work of this department has been conducted along lines similar to those of last year, the principal activity being the examination of milk. The usual examinations of city water have been made, but only a few of the detailed tables of analysis are included in this report for the purpose of reference and comparison.

MILK

Total number of samples analyzed	2,093
Number of sealed samples analyzed	1,069
Number of unsealed samples analyzed	1,024
Total below standard of 11.50 per cent. total solids	83

COMPARISONS

	1916.	1917	1918.
Number of milks analyzed	1,468	1,413	2,093
Per cent. of samples below standard	7.76	8.99	3.96
Average per cent. of total solids	12.23	12.27	12.20
Average per cent. of fat	3.63	3.63	3.61

From the above data it will be readily seen that there was a large increase in the number of samples analyzed, but that the average composition remained nearly the same.

ate or substitute. Of the fifteen samples analyzed, four were in whole or in part cottonseed oil.

Included under "miscellaneous" examination were samples of flour, bread, raisins, farina, castoria, cod liver oil, cream, condensed milk, egg substitute containing no eggs, Rochelle salts—one sample of which was found to be sodium bicarbonate. There were also samples of sardines, raspberries, blackberry jam, lollypops, pie, poison powder, licorice powder, beans, musty bread and flour.

In addition there was a sample of a lemon flavor substitute called "Citrosine," which was found to be nothing but a strong solution of phosphoric acid.

CITY WATER.

There is little difference in the quality of the city water, as shown by the chemical data, from month to month. The water is always good and very soft, being used in many boilers without the use of compounds.

The two principal sources of supply are the Oak Ridge and Clinton Reservoirs, the latter yielding the softer water.

The remarkably uniform character of the water is well shown by the table of Total Solids at the end of this report.

ANALYSES OF NEWARK AQUEDUCT WATER.

Sample No. 100. Taken from the aqueduct, 100 feet from Clinton Street at Newburgh, N. Y.
Parts per Million.

Date	NITROGEN AS										Total Solids	Loss of Ignition	Fixed Material
	Temperature Fahrenheit	Total Solids	Ammonia	Free Ammonia	Nitrogen	Nitrogen	Total Solids	Loss of Ignition	Fixed Material				
Jan. 2	33	0.5	10	.080	.080	0	.075	3.0	23	56	24	82	
Feb. 14	33	2.0	25	.084	.088	*	.11	2.5	23	74	31	43	
Mar. 6	35	6.0	35	.023	.088	0	.06	2.5	16	57	19	38	
April 10	38	1.0	20	.020	.064	*	.13	3.0	21	51	19	32	
May	4	5	20	.214	.070	06	.12	3	30	-	2	30	
June	5	0.5	35	.080	.082	*	.075	3.0	22	43	10	32	
July	6	0.5	30	.037	.088	1	.075	2.0	27	53	17	36	
Aug.	7	0.5	20	.084	.080	0	.070	3	27	56	17	28	
Sept.	8	1	20	.024	.110	0	.125	3	27	60	18	32	
Oct.	8	1.0	20	.026	.080	0	.100	3	27	53	17	29	
Nov.	6	1.0	40	.044	.100	*	.125	3	27	58	44	44	
Dec.	4	1.0	25	.044	.086	0	.130	3	27	54	17	6	

ANALYSES OF NEWARK AQUEDUCT WATER.

Samples from Clinton Stream before junction with Oak Ridge Stream at Newfoundland
Parts per Million.

1918	Tem- perature Fahr.	Tur- bidity	Color	NITROGEN AS				Chlo- rine	Temporary Hardness (Alkalinity)	Total Solids	Loss on Ignition	Fixed Mineral Solids
				Free Ammonia	Albuminoid Ammonia	Ni- trates	N. trates					
Jan. 9	33	0.5	10	.020	.000	0	.02	2.5	9	32	12	20
Feb. 14	32	1.0	20	.022	.076	0	.02	3.0	9	27	10	17
Mar. 6	38	1.0	20	.016	.044	0	.04	2.5	12	43	17	26
April 10	37	0.5	20	.024	.048	0	.05	3.0	9	42	18	24
May 31	56	1.0	20	.020	.070	0	.08	2.5	11	40	15	25
June 12	60	0.5	20	.018	.076	0	.075	3.0	13	31	14	18
July 23	78	0.5	20	.024	.082	0	.100	2.0	22	56	21	35
Aug. 9	75	0.5	25	.020	.078	0	.080	2.5	10	34	12	22
Sept. 5	67	1.0	30	.032	.084	*	.150	3.0	25	61	24	37
Oct. 8	67	0.5	15	.022	.080	0	.100	3.0	11	36	16	18
Nov. 6	48	0.5	20	.034	.088	0	.075	2.5	9	32	12	20
Dec. 4	39	0.5	15	.022	.105	"	.080	3.0	8	30	9	21

* Trace

ANALYSES OF NEWARK AQUEDUCT WATER
 Samples from Laboratory Faucet, 927 Broad Street
 Parts per Million.

Date	Temperature Fahr	pH Acidity	Color	NITROGEN AS				Chlorine parts	Temporary Hardness (Alkalinity)	Total Solids	Loss on Ignition	Fixed Mineral Solids
				Free Ammonia	Ammonia Ammonia	Nitrate traces	Nitrite traces					
Jan. 2	36	0.5	17	.020	.066	0	.040	2.5	14	58	21	22
Feb. 14	5	0.5	25	.020	.064	0	.050	2.5	14	43	12	31
Mar. 6	38	0.5	20	.018	.066	0	.050	2.5	12	43	21	22
April	47	0.5	30	.010	.070	0	.060	3.0	17	50	19	31
May 31	61	1.5	33	.024	.106	0	.050	3.0	18	50	22	28
June 7	66	0.5	30	.008	.070	*	.075	3.0	18	50	17	33
July 25	70	0.5	20	.012	.080	0	.100	2.0	24	53	24	29
Aug. 9	75	0.5	20	.022	.086	0	.090	3.0	22	51	20	31
Sept. 5	77	0.5	20	.022	.086	0	.100	2.5	15	45	21	24
Oct. 5	61	0.5	22	.016	.076	0	.100	3.5	26	56	26	30
Nov. 6	48	0.5	20	.016	.090	0	.070	4.0	17	47	21	26
Dec. 4	43	0.5	20	.014	.108	0	.075	3.0	17	54	19	35

* Trace

ANALYSES OF NEWARK AQUEDUCT WATER.

Averages of Monthly Examinations,
Parts per Million.

1918 SOURCE OF SAMPLE	Tem- perature Fahr	Turbidity	Color	NITROGEN AS				Chlorine	Temporary Hardness (Alkalinity)	Total Solids	Loss on Ignition	Fixed Mineral Solids
				Free Ammonia	Albuminoid Ammonia	Nitrites	Nitrates					
Oak Ridge Stream	51.33	1.66	25.00 *	.0445	.0835	.005	.1108	2.71	26.92	61.33	23.91	37.42
Clinton Stream	51.66	0.67	19.53	.0283	.0718	*	.0608	2.71	12.33	38.75	15.16	23.59
Kanouse Brook	49.66	1.71	97.33	.0335	.0813	0	.0720	2.71	18.41	59.53	22.97	29.91
Fcho Lake Stream	50.50	0.75	30.08	.0326	.1101	*	.0792	2.96	19.41	58.75	25.33	33.42
Macopin Intake	52.00	1.08	25.00	.0708	.0847	*	.0725	3.83	17.91	50.77	20.53	29.92
Cedar Grove Intake	54.00	0.75	22.16	.0281	.0605	*	.0617	2.92	16.08	48.37	21.41	26.92
Cedar Grove Outlet	54.08	0.54	20.91	.0313	.0860	*	.0633	3.80	17.58	54.91	20.83	34.08
Bellevue Reservoir	53.30	0.83	23.00	.0211	.0614	*	.0670	2.83	17.50	51.40	20.77	30.70
Laboratory Faucet	54.40	0.58	22.30	.0193	.0623	*	.0670	2.80	18.00	49.60	20.77	29.30

* Trace.

TABLE OF MAXIMUM, MINIMUM AND AVERAGE TOTAL
SOLIDS IN THE WATER FROM THE LABORATORY
FAUCET FROM 1900 TO DATE

(Total Solids, Grains per U. S. Gallon)

	Maximum	Minimum	Average
1900	1.96	1.56	1.75
1901	1.98	1.58	1.76
1902	1.98	1.58	1.76
1903	1.98	1.58	1.76
1904	1.98	1.58	1.76
1905	1.98	1.58	1.76
1906	1.98	1.58	1.76
1907	1.98	1.58	1.76
1908	1.98	1.58	1.76
1909	1.98	1.58	1.76
1910	1.98	1.58	1.76
1911	1.98	1.58	1.76
1912	1.98	1.58	1.76
1913	1.98	1.58	1.76
1914	1.98	1.58	1.76
1915	1.98	1.58	1.76
1916	1.98	1.58	1.76
1917	1.98	1.58	1.76
1918	1.98	1.58	1.76
1919	1.98	1.58	1.76
1920	1.98	1.58	1.76
1921	1.98	1.58	1.76
1922	1.98	1.58	1.76
1923	1.98	1.58	1.76
1924	1.98	1.58	1.76
1925	1.98	1.58	1.76
1926	1.98	1.58	1.76
1927	1.98	1.58	1.76
1928	1.98	1.58	1.76
1929	1.98	1.58	1.76
1930	1.98	1.58	1.76
1931	1.98	1.58	1.76
1932	1.98	1.58	1.76
1933	1.98	1.58	1.76
1934	1.98	1.58	1.76
1935	1.98	1.58	1.76
1936	1.98	1.58	1.76
1937	1.98	1.58	1.76
1938	1.98	1.58	1.76
1939	1.98	1.58	1.76
1940	1.98	1.58	1.76
1941	1.98	1.58	1.76
1942	1.98	1.58	1.76
1943	1.98	1.58	1.76
1944	1.98	1.58	1.76
1945	1.98	1.58	1.76
1946	1.98	1.58	1.76
1947	1.98	1.58	1.76
1948	1.98	1.58	1.76
1949	1.98	1.58	1.76
1950	1.98	1.58	1.76
1951	1.98	1.58	1.76
1952	1.98	1.58	1.76
1953	1.98	1.58	1.76
1954	1.98	1.58	1.76
1955	1.98	1.58	1.76
1956	1.98	1.58	1.76
1957	1.98	1.58	1.76
1958	1.98	1.58	1.76
1959	1.98	1.58	1.76
1960	1.98	1.58	1.76
1961	1.98	1.58	1.76
1962	1.98	1.58	1.76
1963	1.98	1.58	1.76
1964	1.98	1.58	1.76
1965	1.98	1.58	1.76
1966	1.98	1.58	1.76
1967	1.98	1.58	1.76
1968	1.98	1.58	1.76
1969	1.98	1.58	1.76
1970	1.98	1.58	1.76
1971	1.98	1.58	1.76
1972	1.98	1.58	1.76
1973	1.98	1.58	1.76
1974	1.98	1.58	1.76
1975	1.98	1.58	1.76
1976	1.98	1.58	1.76
1977	1.98	1.58	1.76
1978	1.98	1.58	1.76
1979	1.98	1.58	1.76
1980	1.98	1.58	1.76
1981	1.98	1.58	1.76
1982	1.98	1.58	1.76
1983	1.98	1.58	1.76
1984	1.98	1.58	1.76
1985	1.98	1.58	1.76
1986	1.98	1.58	1.76
1987	1.98	1.58	1.76
1988	1.98	1.58	1.76
1989	1.98	1.58	1.76
1990	1.98	1.58	1.76

Respectfully submitted,

HERBERT B. BALDWIN,

Chemist.

ANNUAL REPORT

OF THE

Division of Bacteriology

ANNUAL REPORT

OF THE

Division of Bacteriology

Charles V. Craster, M. D., Health Officer.

DEAR SIR—Herewith is respectfully submitted the Annual Report of the Division of Bacteriology for the year ending December 31, 1918:

The main activities of the year are grouped in tabular form wherever short and concise tables can be used, while long columns of figures are avoided, as such tables are usually confusing.

EPIDEMIC INFLUENZA.

The laboratory was called upon to meet some very unusual conditions during 1918 and among these that stand out prominently we may mention the disastrous epidemic of influenza in October and November, during which time the laboratory staff bent every effort to lend assistance by examining specimens of sputum from the victims. As the epidemic progressed, however, cases grew in number so rapidly that we were very soon swamped with specimens and finally the physicians who were treating victims found time only for clinical diagnosis.

There was, indeed, very little assistance that could be rendered to the physicians, as we quickly found, so far as diagnosis was concerned. The vast majority of the specimens of sputum that came to the laboratory from victims of the disease presented the same general picture, *i e.*, frothy,

... blood stained, and as the disease progressed the discharge became very profuse and more purulent.

... for the microscope almost invariably found in pairs and in chains, and well marked capsule. Streptococci and Micrococcus Catarrhalis. These germs were either all present together or in various combinations with the Pfeiffer Bacillus, which appeared constantly in all cases that ran a clinical course of influenza.

Because of the constant presence of Pfeiffer Bacilli the authorities in some communities where the disease appeared came to the conclusion that vaccination with this bacillus might act as a prophylactic against infection, and after this vaccine had been extensively used in Boston and New York, the Newark laboratory prepared and distributed approximately 30,000 doses of Pfeiffer Bacilli Vaccine.

After carefully analyzing the results of this vaccination, we were forced to the conclusion that as a prophylactic this vaccine was of very little value, as the protection it afforded was very slight. This agrees with observations made in other cities where similar vaccines were tried.

It would, therefore, appear that the influenza epidemic of 1918-1919 ran its course and disappeared leaving humanity as ill prepared to meet the next visit as it was to meet all of the previous outbreaks of this dreadful and mysterious scourge.

RABIES.

After a period of almost entire freedom from cases of rabies in animals during the first four months of the year, a case appeared in the eastern section of the city on the evening of July 3rd, and after a frenzied run through a large number of streets, it was finally killed, but

not before it had left a trail of thirty-seven human victims behind, and more or less severely bitten. This, so far as we have been able to discover, was the greatest number of human victims bitten in so short a time by one dog.

An examination of the brain of this animal showed that it was very badly infected with rabies and it is with a genuine feeling of relief we are able to report that none of the victims suffered serious results from the infection. All of the thirty-seven took the course of anti-rabic vaccination provided by the local Health Department.

The great number of persons exposed in this case forcibly brought up the subject of having the department prepare its own anti-rabic virus, and with this end in view provision has been made in the new laboratory, where a room has been fitted up ready for use if future experience with rabies in Newark indicates that this would be the wisest course.

EPIDEMIC CEREBRO SPINAL MENINGITIS.

Cases of this disease occur from time to time, and while not great in number, yet they occur with then persistent regularity. On recommendation of the Health Officer in December, His Honor, Mayor Gillen, gave orders to procure a supply of antimeningitis serum for distribution among the institutions treating such cases, and also for poor and indigent cases in private practice where its purchase would be a hardship.

It was also recommended that inquiry be made regarding the advisability of having the department prepare anti-meningococcus serum for its own use and it is expected that before the new year is far advanced this project will be under way.

PNEUMONIA TYPING.

The typing of specimens from cases of pneumonia has also been taken up, with the idea of giving physicians in

SWIMMING POOLS

Samples of water from public and semi-public swimming pools in the city have been examined from time to time during the year and the table showing these examinations clearly illustrates the fact that by proper supervision and frequent chlorination it is possible to keep the water in every one of the pools in a high state of purity, while neglect will permit the best of them to quickly become a menace to the users.

DIPHTHERIA.

This disease showed an increase of over 100 cases in 1918 as compared with the record for 1917. The most disconcerting part of the record for 1918, however, is that the actual, as well as the percentage mortality, of this disease showed a marked increase. The antitoxin prepared by the department is used very generally in nearly all of the cases that remain in the city for treatment, but the city's product is not used in cases after they are removed to the County Isolation Hospital at Solon. At this institution, 209 cases were treated with antitoxin other than that prepared in Newark, and thirty-four, or 16.25 per cent of the cases died, making over 47 per cent of the year's total mortality for the city.

It must be borne in mind that many bad cases of the disease are received at the Isolation Hospital for treatment, but many desperately sick cases are also treated in their homes in Newark. In 1918 there were treated in Newark 720 cases with the antitoxin made by the Health Department, and thirty-eight, or 5.2 per cent, died. This is more nearly what the total average for the year should be, instead of 7.8 per cent, which it is.

The following table shows the above in tabular form:

DIPHTHERIA IN 1918 COMPARED WITH

1916

Number of cases reported		
Number of deaths regardless of treatment		
Number of cases treated with antitoxin		
Number of deaths treated with antitoxin	72	78
Number of cases not treated with antitoxin		
Number of deaths not treated with antitoxin		
Number of above cases treated at the County Isolation Hospital at S. Ho.	209	100
Number of deaths treated at the County Isolation Hospital at S. Ho.		

TUBERCULOSIS

This disease, if we may judge by the number of specimens that contained tubercle bacilli, showed a marked increase in 1918. The same technique was used as in various years and the laboratory was fortunate enough to have on hand a sufficiently large supply of the same stains we have been using for years, so that no change has been

interest in this connection.

To R. A. Connolly, M. D., Bacteriologist

DEAR SIR: During the year 1918 there were 2,613 specimens of sputa examined for tuberculosis at the laboratory. 2,070 were negative, the number containing tubercle bacilli

Below is a table showing the sex and age of the positive cases:

Age	Male	Female
1 to 10 years	3	1
10 " 20 "	17	26
20 " 30 "	82	77
30 " 40 "	97	43
40 " 50 "	57	19
50 " 60 "	26	6
60 years and over	15	3
Total	297	175
Percentage	62%	37%

As heretofore the greatest number of cases occur between 20 and 40 years, in this age group 62% are males and 37½% females.

Indoor or outdoor occupations seem to play an important role in the number of cases occurring, as will be seen by the following table, which shows the number of males and females engaged in indoor and outdoor occupations. Housewives are included in the number of females listed as being engaged indoors.

OCCUPATION

INDOORS		OUTDOORS		Total
Male	Female	Male	Female	
148	151	94		393

The above table shows that only 94, or 24%, of the positive cases, which the physicians gave us positive data concerning the occupation of the patients, were employed or engaged in outdoor pursuits.

Respectfully submitted,

DR THOMAS H RIPLEY,

Assistant Bacteriologist

CITY WATER SUPPLY.

Bacteriological examination of samples of City water obtained during 1918 gave the following results:

Origin of Sample	No of Exam- inations	Avg No. of Bact. per C.
Oak Ridge Stream, above Clinton Stream	24	8.2
Clinton Stream, above Oak Ridge Stream	24	21.5
Kanouse Creek, above Pequannock River	24	3.0
Echo Lake Stream, above Pequannock River	24	1.5
Macopin Intake at Gatehouse	24	16.5
Cedar Grove Reservoir, Inlet Gatehouse	24	7.0
Cedar Grove Reservoir, Outlet Gatehouse	24	6.0
Belleville Reservoir, Inlet Gatehouse	24	5.8
Belleville Reservoir, Outlet Gatehouse	24	5.7
Dept. of Health, Plano and Wilham Sts.	24	3.5
Laboratory Faucet, City Hospital	45	1.7

SWIMMING POOLS.

Bacteriological tests of water from public and semi-public swimming pools:

Address	No. of Samples	Maximum No. of Bact. per C.	Maximum No. of Bact. per C.	Average No. of Bact. per C.
105 Halsey St., Y. M. C. A.				
Swimming Pool	13	37	230,000	1,881
53 Washington St., Y. W. C. A.				
Swimming Pool	13	70	71,000	6,838
10 West Park Street				
Swimming Pool	12	600	68,000	9,400
45 Howard Street				
Swimming Pool	12	180	25,000	7,008
32 Meeker Street				
Swimming Pool	12	90	45,000	1,175
East Side Public Bath				
Swimming Pool	4	7,000	30,000	15,000
76 Charlton Street				
Swimming Pool	1			98,000

CITY MILK SUPPLY.

The following table has been prepared by Dr. G. W. Ashbrow and gives some interesting details regarding the condition of the general milk supply during 1918.

R. N. Connolly, M. D., Bacteriologist.

DEAR SIR: During the year ending December 31, 1918, 3,490 samples of milk from the city supply have been brought to the laboratory for bacteriological examination. Upon these samples 6,533 separate tests have been made. The examinations as in former years consisted of routine bacteria counts after 48 hours incubation at 37° C. (3,043) and examinations for streptococci (3,490).

ROUTINE PLATE COUNTS.

In this group were made 3,043 examinations of which 2,205 (72.46%) contained 100,000 bacteria per c. c. or less and could therefore roughly be considered acceptable under the provisions of the city milk ordinance. The remainder 838 (27.53%) contained more than 100,000 bacteria per c. c. and were therefore unacceptable.

The results of these examinations are shown in the following table:

Samples containing 100,000 bacteria per c. c. and under	2,205	72.46%
Samples containing over 100,000 up to and including 500,000 per c. c.	578	18.99%
Samples containing over 500,000, up to and including 1,000,000 per c. c.	141	4.63%
Samples containing over 1,000,000 per c. c.	119	3.91%
	3,043	99.99%

EXAMINATIONS FOR STREPTOCOCCI.

During the year 3,490 examinations for streptococci were made. Of these, 3,043 were routine and made simultaneous

ously with the plate counts. 44% were special examinations made of milk samples collected from the city. Of the 3,043 routine sample examinations (1.21%) were found to contain streptococci. Of the 447 special examinations 13.6% contained streptococci. In the whole number of examinations made 63 (1.8%) contained streptococci.

	No Samples	No. Pos.	Percent
Routine examinations for Streptococci	3,043	37	1.21
Special examinations for Streptococci	447	26	5.81
Total examinations	3,490	63	1.80

SUMMARY

The following is a table summarizing the examinations made in 1918.

Plate counts at 37°C	304
Routine Streptococci	501
Special Streptococci	447
	554

Respectfully submitted,

G. WARD DISBROW, M. D.

Assistant Bacteriologist.

The following table presents the totals of various kinds of routine work performed at the Laboratory during 1918 and contrasts the same figures for 1917:

	Total for 1918	Total for 1917
Diphtheria—		
No. of primary cultures examined	5,095	6,236
No. of true cases	641	601
Total number of cultures for diphtheria and infection	6,850	7,660
Diphtheria Antitoxin—		
No. of doses on hand beginning of year	204	136
No. of doses produced during the year	2,374	2,766
No. of doses distributed during the year	2,578	2,562
Tuberculosis—		
No. of specimens of sputum examined	2,613	3,140
No. of specimens containing tubercle bacilli	543	737
Miscellaneous—		
No. of water examinations	452	610
No. of blood examinations for typhoid and malaria	908	744
No. of doses of typhoid vaccine distributed	389	403
No. of doses of Pertussis vaccine distributed	799	765
No. of milk examinations (city supply)	3,490	3,561
No. of specific catarrhal infection examinations	1,180	1,148
No. of Wassermann tests (Serological lab.)	4,073	4,566
No. of disinfection tests	174	113
Rabies—		
No. of animals examined for rabies	26	40
No. of animals found infected	14	19
No. of exposed persons given preventive treat- ment	46	31

Respectfully submitted,

RICHARD N. CONNOLLY, M. D.,

Bacteriologist.

thusiastic workers, but the vast majority of those discoveries were soon shown to be without basis of fact, and it was not until January, 1892, about two years after the beginning of the outbreak that Pfeiffer, Canon and Kitasato, three independent workers, each announced the discovery of the influenza bacillus.

The description of the bacillus and the observations of Pfeiffer were particularly complete, and their accuracy was subsequently mainly confirmed by other observers. The bacillus was described as one of the smallest of the known pathogenic germs—1.5 microns long by 0.3 microns in breadth—about one-half size of the typhoid bacillus. It had no capsule, produced no spores, was gram negative and stained best with a dilute solution of carbolfuchsin (1 to 10). It was described as growing best on media that contained hæmoglobin and produced the maximum development when grown on media contaminated with other bacteria, preferably the staphylococcus aureus (symbiosis). It required frequent transfer to new media every two or three days and was found to be easily killed by desiccation and disinfectants. For the latter reason it was regarded improbable that the disease was ever transmitted for long distances through the air.

The bacilli were found in enormous numbers in the discharges from the respiratory tract in uncomplicated cases of the disease, and frequently were found in great numbers within the leucocytes. In cases infected with these bacilli in large numbers, it was observed that even, though accompanied by pneumococci the condition produced in the lungs was usually a lobular rather than a lobar pneumonia. Numerous cases of meningitis caused by what has been described as a pure culture of influenza bacilli have been reported, and middle ear disease is not uncommon in which these bacilli appeared to be the only bacteria present.

Animals proved to be refractory to infection and, consequently, demonstrable proof of the relation of the bacillus to the disease was lacking, yet in spite of this the bacillus has been generally known for over 25 years as the cause of Influenza (Pfeiffer).

There were so many unanswered questions regarding the relationship of the Pfeiffer Bacillus to Epidemic Influenza and investigation was so hampered by the fact that the more the disease was studied the more the problem became. For instance: frequently abundance of the bacillus was found in the nasal secretions of persons who never showed any symptoms of the disease, even at times when the disease was not prevailing, and occasionally victims of the disease were found whose expectoration showed none of the bacilli. The writer, however, has never seen any of the latter cases.

Because of these perplexing questions various theories have been put forward, for example, it was suggested that the epidemic form of the disease depended upon a combination of bacteria of various kinds with the Pfeiffer bacillus, such as the pneumococcus, the strepto- or staphylococci and the merococcus catarrhalis, etc. Again that certain strains of influenza bacilli of exalted virulence occur from time to time; or that cosmic or terrestrial influences act to some manner to enhance the susceptibility of large bodies of people. Some work has been done with the idea of proving the existence of a filterable virus as the cause of the disease. This, however, is like the previous theories still lacking confirmation.

With these conflicting and unsatisfactory conditions existing, the latest great outbreak of influenza found us as unprepared as a previous generation was in 1889 to combat

the ravages of the infection. To illustrate our inability to deal with the disease I may mention that a busy practitioner of medicine recently informed me that he had lost the greater part of his cases by advising them to eat plain food, to abstain from and drink black coffee, with the result of increasing his statement, that his case mortality was as heavy as that of his scientific neighbor, who followed only the recommendations of the most talented bacteriologists, institutes, or the largest research laboratories in the country.

The concluding portion of the second chapter relates to some interesting and startling investigations recently made by the Federal Government at the U. S. Quarantine Station, Gallups Island, Boston, Mass., under the supervision of Lt.-Col. M. J. Rosenau, and also at Angel's Island Quarantine Station, San Francisco, Cal., under the direction of Major G. W. McCoy. A preliminary report of the experiments is published in Bulletin No. 57, Confidential, and is entitled Notes on Preventive Medicine for Medical Officers U. S. Navy. Instructions to Medical Officers

Dept. of the Navy,

Bureau of Medicine and Surgery,

Washington, D. C., Dec. 28, 1918

Experimental Attempts to Transmit Influenza to the Human Subject

The following is only a synopsis of the work reported in the above Bulletin and the original is recommended to those who are interested in this very important subject.

At Gallups Island 68 volunteers were subjected to a variety of methods of exposure. Some were inoculated with living germs from five different strains of influenza which had recently been isolated. Some volunteers were sprayed and inoculated with unfiltered and filtered secretions from the upper air passages of patients suffering with typical attacks of influenza in the acute stage, and some

were admitted to the study of these patients. Ten men were employed in the infected cases of influenza in the hospital. At the Naval Hospital, each of the men who were asked to participate coughed into the face of the patient, thus insuring that each volunteer was exposed to the virus. The total time of exposure for each volunteer was three quarters of an hour. None of the volunteers developed any symptoms of influenza.

At Angel Island Quarantine Station, San Francisco, California, where we were exposed to similar experiments, the volunteers in the hospital with scratches and cultures for influenza in the nose and no instance was influenza contracted by the volunteer.

The following is quoted from the above mentioned bulletin, issued with the serious consideration: "No conclusions may be drawn at this time from these intensely interesting experiments." The outstanding facts from all reports collected for the isolation patients of Angel Island are as follows: "The results of these studies certainly seem to indicate that influenza is not contracted by other experiments." The studies were, however, well conducted and the results will be published in the future with a view to a more complete and exacted study.

"The results of these studies certainly seem to indicate that influenza is not contracted by other experiments." The studies were, however, well conducted and the results will be published in the future with a view to a more complete and exacted study. This is due to the more than 100 volunteers who participated in the study, and the cooperation of the medical staff of the hospital, who have been extremely helpful in the study. The high personal courage displayed by the men."

The following is a summary of the results of the study: "The results of these studies certainly seem to indicate that influenza is not contracted by other experiments." The studies were, however, well conducted and the results will be published in the future with a view to a more complete and exacted study. This is due to the more than 100 volunteers who participated in the study, and the cooperation of the medical staff of the hospital, who have been extremely helpful in the study. The high personal courage displayed by the men."

R. N. C.

CULTURE COLLECTORS.

Following is a summary of the work performed by the two culture collectors attached to the Bacteriological Laboratory, whose duty it is to supply the marine stations with anti-toxin and outfits for taking diphtheria cultures, sputums, Wassermans, typhoid and other blood tests, collect data, fill out reports and deliver to the stations by the doctors and deliver them to the laboratory.

Anti-toxin delivered	2100
Outfits delivered	
Cultures	9599
Sputums	3771
Typhoid	925
Wassermans	3494
Catarrhal	1179
Outfits collected	
Cultures	4063
Sputums	2391
Typhoid	419
Wassermans	2107
Catarrha	867

ANTI-TOXIN AND CULTURE STATIONS BY WARDS

12

Ward	STATION	Street and Number	Telephone No
First	W. R. Scudder	95 Belleville Avenue	1-2 B. B.
First	Second Precinct Police	South and South Avenues	Market
Second	St. Michael's Hospital	South and High Street	Market
Second	City Dispensary	South and Wilbur Streets	Market
Second	City Dispensary	Broad and Market Streets	Market
Second	City Dispensary	925 Broad Street	Market
Second	City Dispensary	906 Market Street	Market
Second	First Precinct Police	Court and Washington Streets	Market
Third	St. Barnabas' Hospital	681 High Street	Market
Third	Beth Israel Hospital	High and Kinney Streets	Market
Fourth	Firemen's Pharmacy	Broad and Market Streets	Market
Fourth	A. E. Sayre	482 Broad Street	Market
Fourth	Max J. White	Broad and Fulton Streets	Market
Fourth	City Dispensary	204 Walnut Street	3908 Market
Fourth	City Dispensary	17 Ferry Street	Market
Fourth	City Dispensary	Ferry Street	9631 Market
Seventh	J. P. Smith	71 South Orange Avenue	1514 Mulberry
Seventh	L. L. Stachle	150 South Orange Avenue	1539 Market
Seventh	City Hospital	116 Fairmount Avenue	9300 Market
Seventh	D. Strauss	62 Springfield Avenue	4633 Market
Seventh	P. J. Connelley	25 Wallace Place	5205 Market
Eighth	Elwood Pharmacy	190 Washington Avenue	1091 B. B.
Eighth	Oriental Pharmacy	289 Belleville Avenue	453 B. B.
Eighth	H. J. Quinn	187 Bloomfield Avenue	260 B. B.
Eighth	L. Arnold	684 Mt. Prospect Avenue	1711 B. B.
Eighth	Eighth Precinct Police	Washington Avenue	5100 Market

MARKET

MARKET

MARKET

ANTI-TOXIN AND CULTURE STATIONS BY WARDS *Continued*

Ward	STATION	Street and Number	Telephone No.
Eighth	A. Haria	346 Bloomfield Avenue	2942 B. B.
Ninth	Geo. Linnett & Bro.	77 Lincoln Park	3034 Mulberry
Ninth	R. M. Laird	191 Clinton Avenue	1337 Waverly
Eleventh	J. B. Foster	Orange Street and Roseville Avenue	151 B. B.
Eleventh	Fifth Precinct Police	Orange and Sixth Streets	5400 Market
Twelfth	O. Scholz	131 Wilson Avenue	4343 Market
Twelfth	Bowley Pharmacy	28 Fleming Avenue	10104 Market
Twelfth	Third Precinct Police	Van Buren Street	5400 Market
Thirteenth	A. Marquier	1041 South Orange Avenue	2878 Mulberry
Thirteenth	A. Reusch	661 Springfield Avenue	2444 Waverly
Thirteenth	Seventh Precinct Police	South Orange Avenue	5400 Market
Fourteenth	F. L. Feind	76 Belmont Avenue	2404 Waverly
Fourteenth	Aug. Kooble	62 Springfield Avenue	1504 Waverly
Fourteenth	Fourth Precinct Police	Seventeenth Avenue	400 Market
Fourteenth	C. W. Jensen	1 Springfield Avenue	2184 Waverly
Fifteenth	E. Brock	18 Central Avenue	3301 Market
Fifteenth	L. Hagley	Central Avenue and Fifth Street	1651 B. B.
Sixteenth	H. H. Gray	14 Clinton Avenue	2468 Waverly
Sixteenth	G. J. Keller	151 Avon Avenue	1103 Waverly
Sixteenth	W. J. Witt	821 Clinton Avenue	2871 Waverly
Sixteenth	Sixth Precinct Police	Hunterdon and Bigelow Streets	5400 Market

CULTURE COLLECTORS.

John F. Dunn 113 South Eighth Street
 William J. Foyle 142 Hudson Street

ANNUAL REPORT

OF THE

City Dispensary

CLINICS

MEDICAL—9 A. M. daily except Sundays

DISEASES OF CHILDREN—10 A. M. daily except Sundays

SURGICAL—9 A. M. daily except Sundays.

GENITO-URINARY—Monday and Thursday, 10 A. M.

CYSTOSCOPY—Wednesday, 10 A. M.

DISEASES OF WOMEN—Tuesday and Friday, 3 P. M.

DISEASES OF SKIN—Tuesday and Friday, 9 30 A. M.

SYPHILIS—Male, Wednesday 3 P. M. Female Friday 30 A. M.

EYE, EAR, NOSE AND THROAT—Monday, 3 P. M.

DISEASES OF RESPIRATORY—Monday, Wednesday, Friday 2 P. M.

NERVOUS DISEASES—Monday, Wednesday, Friday 2 P. M.

ORTHOPEDIC—Tuesday, Thursday, Saturday, 10 A. M.

DENTAL—Monday, Wednesday, Friday, 1 P. M.

PRENATAL—Thursday, 3 P. M.

TUBERCULOSIS—

(White)

Monday—Children—new cases—3 P. M.

Tuesday—Adults—treatment and examination—old cases. Children—old cases—3 P. M.

Wednesday—Adults—throat—Children, 3 P. M.

Thursday—Children—new cases—3 P. M.

Friday—Adults—treatment and examination—old and new cases—3 P. M. Children—old cases—3 P. M.

(Colored)

Tuesday—Adults, 10 A. M. to 11 A. M.

Saturday—Children, 10 A. M. to 11 A. M.

Wednesday and Thursday—old and new cases—3 P. M. to 4 P. M.

(Night Clinic)

Thursday—Adults, 6 P. M. to 7 P. M.

DISPENSARY MEDICAL STAFF

DEPARTMENT OF SKIN—INCLUDING SYPHILIS

H. F. WALLHAUSER, M. D.*

Chief of Clinic, Division

LOUIS A. KOCH, M. D.*

Chief of Clinic, Division B

ST. KAUFMAN, M. D.

HETTER, M. D.*

PAUL BRIM, M. D.

RANGERT, M. D.

ANNE BRIM, M. D.

N. COMANDO, M. D.

MARY F. BROADNAN, M. D.

ANDREW WALLHAUSER, JR., M. D.*

DENTAL DEPARTMENT

J. J. McMANUS, D. D. S.

J. E. H. GUTHRIE, D. D. S.

DEPARTMENT OF NERVOUS DISEASES

CHRIS. C. BEILING, M. D.

Chief of Clinic

ASSISTANTS

AMBROSIO, I. DOWD, M. D.*

LOUIS K. HENSCHEL, M. D.

S. M. GOLDSTEIN, M. D.

DEPARTMENT OF RECTAL DISEASES

DAVID A. KRAKER, M. D.*

Chief of Clinic

ASSISTANT

S. M. GOLDSTEIN, M. D.

PROCTAL DEPARTMENT

H. C. H. HEROLD, M. D.

Chief of Clinic

GENITO URINARY AND CYSTOSCOPIC DEPARTMENT

C. R. O'CROWLEY, M. D.*

Chief of Clinic

ASSOCIATES

H. C. POVEY, M. D.

B. A. FURMAN, M. D.*

F. A. ROBERTS, M. D.*

L. L. DAVIDSON, M. D.

S. C. KELLER

ASSISTANTS

A. G. REINEFELD, M. D.*

S. B. GOLDSTEIN, M. D.*

S. ROTHENBERG, M. D.*

EDW. MARKENS, M. D.*

* In Army Service

DEPARTMENT OF SURGERY

H. ROY VAN NESS, M. D.*

Chief of Clinic

ASSISTANTS

OTTO LOWITS, M. D.

H. J. GILBERT, M. D.*

EMIL MAUTNER, M. D.

H. N. COMANDO, M. D.

J. W. GARDAM, M. D.*

DEPARTMENT OF MEDICINE

F. C. HORSFORD, M. D.*

Chief of Clinic

ASSISTANTS

PHILIP CONLON, M. D.*

JAS. E. MCCORMICK, M. D.*

ERNEST GENNELL, M. D.*

G. B. EMORY, M. D.*

FREDERICK A. AILING, M. D.*

GRANT THORBURN, M. D.*

C. S. JANIFER, M. D.*

J. JESSURUN, M. D.

MAX DOBRIN, M. D.

DEPARTMENT OF TUBERCULOSIS

M. J. FINE, M. D.

Chief of Clinic

ASSISTANTS

SIDNEY B. RAWITZ, M. D.*

C. BERARDINELLI, M. D.*

WM. GREEN, M. D.

ROSCOE BUCKNER, M. D.

DEPARTMENT OF EYE, EAR, NOSE AND THROAT

WELLS P. EAGLETON, M. D.*

Chief of Clinic

ASSISTANTS

E. A. CURTIS, M. D.*

H. C. BARKHORN, M. D.

DEPARTMENT OF GYNAECOLOGY

WILLIAM GAUCH, M. D.*

Chief of Clinic

ASSISTANT

MARY E. BROADNAX, M. D.

DEPARTMENT OF ORTHOPEDIC SURGERY

CARL R. KEPPLER, M. D.

Chief of Clinic

ASSISTANT

WM. BRAMS, M. D.

PEDIATRIC DEPARTMENT

JULIUS LEVY, M. D.

Chief of Clinic

ASSISTANTS

HESSER G. McBBIDE, M. D.

HERMAN NASH, M. D.

FRANK W. PINNEO, M. D.*

PAUL H. HOSP, M. D.

* In Army Service

ANNUAL REPORT

OF THE

City Dispensary

ANNUAL REPORT OF DISPENSARY FOR 1918

April 1, 1919.

Dr. Charles V. Craster, M. D., D. P. H., Health Officer

DEAR SIR I herewith submit the 1918 Annual Report of the City Dispensary. In presenting it I would first of all express appreciation of the aid rendered by the clinic physicians during the past year, especially as the clinics were operated under the severe handicap caused by the unavoidable absence of members of the staff of physicians in answering the Government's call to the country's medical service. The clinic physicians and others voluntarily offered themselves for the many extra demands caused by the exigencies of war service and acquitted themselves in a highly creditable manner.

The general public is only beginning to realize the important part which the out-patient clinics or dispensary is playing in the relief and prevention of disease among the masses of the people in our large city. Located as these clinics are in the center of the city they are easily accessible to the majority and thousands of cases of illness and disease are treated while still in the incipient stage and much chronic illness thereby averted. It is easy to understand why in this way much economic or wage loss is avoided. Among the cases treated are many acute diseases and when necessary these are placed in hospitals or cared for in their homes by our District Physicians.

... for dealing the first ... with the ... New ... ark's great industrial expansion due in large part to war activities

In the course of 1918 a social service department was elaborated as a means of assisting the Bureau of Venereal Diseases which was formed in conjunction with the activities of the Federal and State authorities in an endeavor to combat and control venereal diseases

Very recently night clinics were organized, open to all ... diseases. These clinics enjoy the co-operation of the Government which supplies some of the necessary drugs. During the year there were 300 new cases of gonorrhoea and 171 of syphilis reported and treated by these clinics.

Twenty-three hundred and twelve district prescriptions were compounded during 1918 for persons without means to pay for the services of physicians and those too sick to leave their homes

To give drug addicts an opportunity to secure medical treatment to overcome their affliction a clinic was established with this end in view. The first attendances were quite large, but there was a gradual falling off in the number applying for treatment. This was due to the necessity of abandoning the regular clinic and in part to insincere patients, who come with the idea that they would be supplied with "free dope." There is good ground for hope, however, that with the return of normal times, this work will again be carried on, as the results obtained seem to place the question of rehabilitation of sincere drug addict cases out of the empyre stage.

Another feature of moment in our work for 1918 was a vast improvement and gratifying development of the den-

tal clinic through the addition of another dentist and the installation of an up-to-date dental equipment for tooth filling and modern repair work for indigent persons and children from the schools of Newark.

During the influenza epidemic an emergency medical relief station was started and the public who were unable to secure a physician's care and to whom treatment were provided with such from a volunteer corps of physicians.

To relieve suffering, to cure illness, and to prevent disease by efficient medical service and co-operating with social service and other organizations and agencies in the community engaged in promoting the public health, this is a program which should enable the City Dispensary to face the future with an enthusiasm that will both realize this opportunity and secure the required support.

Respectfully yours,

HENRY A. OLTMAN,

Apothecary

DISTRICT PRESCRIPTIONS, 1918

	1918	1918	F. A. S.			M.			S. V. S.			G. F. S.			T. S.		
First																	4
Second																	
Third																	
Fourth																	
Fifth			78	51	82	66	37	9	24	15	17	68	80	68		488	
Sixth				47	60	60	60	40	10	0	0				1		7
Total															84		2,912

RECAPITULATION

Total number of patients treated	2,677
Total number of prescriptions dispensed	31,149
Total number of patients sent to hospitals	1,252
Total number of vaccinations	839

Due to the resignation of the Fourth District and District of Columbia, District of Columbia, Government Service, Dr. Fisher of the Fifth District, resigned.

PATIENTS SENT TO HOSPITALS BY PERMITS ISSUED FROM CITY DISPENSARY FOR CITY HOSPITAL AND CITY BEDS IN OTHER HOSPITALS

HOSPITALS	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
City Hospital	68	9	4	62	62	32	31	42	26	63	32	34	443
St. Michael's		9		9	5	7	5	6	3	17	2	3	92
St. James'	4	7	7	6	8	3	4	7	5	4	2	8	65
St. Barnabas'	10	4	9	9	6	10	11	7	5	5	6	7	92
German Newark Maternity		8	11	12	7	9	6	9	5	5	2	7	90
Beth Israel	5	6	15	12	11	4				8	4	3	68
Women and Children				4					1				12
Rabies			1	14	10	14	18	18	8	15	12	12	162
Eye and Ear Infirmary		8	2	28	21	28	16	5	12	6	4	6	207
Home for Crippled Children	6												6
Eighth Avenue Day Nursery						1							1
Newark Maternity	9				1	1	3		1	3	1	2	14
Total	145	105	137	126	100	100	94	94	66	129	65	82	1,252

During the year 1914 cases of epidemic influenza were taken care of by the various hospitals. The number of city beds in the Women and Children's Hospital was reduced during the year from eight to four beds.

ANNUAL REPORT OF DISTRICT PHYSICIANS

Following is the annual report of the work performed by the District Physicians of the Department. In addition to their routine work of visiting and prescribing for indigent sick, the physicians were called upon to assist in many other cases such as the vaccination of parochial school children, vaccination of employees at Port Newark when a case of small pox developed there, and to assist in diagnostic work.

The following table gives the visits made during the year by the doctors in the different districts and the nature of the illness.

DEPARTMENT OF PUBLIC AFFAIRS

ANNUAL REPORT OF DISTRICT PHYSICIANS

DISTRICT	First District Dr. Hirschberg	Second District Dr. Brodman	Third District Dr. Rothman	Fourth District Dr. Hirschberg Dr. Kaizer	Fifth District Dr. Fischer Dr. Cohen	Sixth District Dr. Jedel Dr. Robinson	Total
Acute Diseases	4	10	0	61	17	9	146
Chronic Diseases	20	41	9	32	36	22	161
Other Diseases	23	11	49	15	46	19	173
Other Venereal	70	253	1	0	18	96	468
Mental	0	0	6	0	11	0	17
Other	12	0	6	5	11	2	36
Other	60	148	70	68	70	19	444
Other	3	32	1	10	20	20	86
Other	5	0	1	0	9	1	16
Other	10	0	0	0	2	7	19
Other	7	3	0	0	3	0	13
Other	16	19	9	9	21	19	96
Other	0	0	42	0	57	0	99
Other	47	47	102	54	58	34	387
Other	2	0	0	0	5	1	8
Other	0	0	0	0	3	1	4
Other	6	12	1	28	22	3	72
Other	66	174	178	118	118	33	729
Other	78	50	95	56	68	96	452
Other	5	8	3	22	31	13	82
Other	0	0	37	0	9	1	47
Other	16	3	0	2	18	6	45
Other	1	0	9	0	4	2	16
Other	10	5	14	30	6	9	74
Other	4	0	1	1	6	14	26
Other	3	0	2	0	1	2	8
Other	0	0	1	0	2	0	3
Other	6	8	2	123	6	4	139
Other	3	51	15	3	8	2	82
Other	0	17	0	0	2	0	19
Other	8	36	8	29	35	5	121
Other	75	50	95	174	256	58	711
Other	0	0	0	1	2	0	3
Other	0	0	0	0	1	1	2
Other	0	0	0	0	4	0	4
Other	0	0	0	1	0	0	1
Other	42	2	30	16	22	28	140
Other	0	0	49	0	40	12	101
Vaccination	22	0	0	0	45	0	67
Total cases	830	1053	914	1113	1246	670	5556
Patients visited	40	322	525	694	1133	546	3667
Patients sent to hospital	66	84	84	148	78	44	

* Dr. Hirschberg joined Army in September.

† Dr. Fischer resigned in September.

‡ Dr. Jedel joined Army in June.

ANNUAL REPORT OF THE PAROCHIAL SCHOOL, MEDICAL INSPECTION

The staff of five nurses continued to attend to the medical inspection of Parochial School children during the year 1918, with ever-increasing efficiency. This work which started in 1917 has now become systematized and the schools and pupils accustomed to the inspection.

During the influenza epidemic the latter part of the year the schools were closed and the nurses were used either in investigating cases of disease or were detailed to the various hospitals, where the shortage of nurses was so acute.

The work of the nurses is also taking on more of a social service nature, investigations being made of home conditions, etc. The following chart shows the visits, conditions found, etc.:

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SCHOOL	No. Adm.	No. Dischd.	No. Died	No. Transferred	No. Re-entrants	No. Graduates	No. Undergraduate	No. Postgraduate	No. Total
Our Lady of Mt. Carmel	57	12	154	8	1	0	95	227	60
St. Columba	55	10	172	15	0	0	100	122	238
St. Aloysius	55	13	192	27	0	15	233	50	146
St. Benedict	60	15	167	15	0	0	75	245	185
St. Mary Magdalene	25	3	7	10	0	0	0	8	10
St. Columba	65	38	192	90	5	0	163	175	86
St. Bridget	67	5	135	50	2	0	97	55	30
St. Mary	83	10	45	30	0	0	64	52	42
St. Philip	68	5	38	28	0	0	49	45	63
St. John	6	28	52	90	3	0	115	63	38
St. Michael	60	17	10	15	1	7	38	38	17
St. James	7	30	45	20	0	2	42	7	25
St. Mary	65	15	57	15	0	0	47	110	5
St. Joseph	27	20	90	17	0	0	50	225	10
St. Peter	53	68	32	5	10	95	0	27	4
St. Patrick	15	30	17	0	1	62	60	5	5
St. Agnes	7	20	56	27	0	2	50	0	2
St. Joseph	100	43	292	63	7	30	335	33	69
St. Anthony	50	17	216	53	7	10	100	226	70
St. Patrick	40	10	66	13	0	3	66	230	53
St. Michael	66	7	60	17	0	3	90	156	40
St. Stanislaus	70	30	152	22	0	20	15	9	35
St. Peter	20	2	200	17	0	2	0	32	0
St. Anne	55	10	87	7	0	2	0	20	15
St. Charles	7	5	63	7	0	2	10	7	7
TOTALS	1731	457	2551	650	29	114	1928	2395	1302

ANNUAL REPORT

OF THE

Division of Tuberculosis

ANNUAL REPORT

OF THE

Division of Tuberculosis

April 30 1919.

*Dr. Charles V. Croster, Department of Health, Newark,
New Jersey:*

DEAR SIR:—I herewith present the report of the Tuberculosis Division for the year 1918. This report covers the work accomplished through the clinics, nurses and general field activities.

The number of patients attending the clinics during this year was fifty-four, less than during the year of 1917. This decrease can be attributed to several causes. The clinics were closed during the influenza epidemic and the nurses in attendance, who were the sources of supply at the clinics, were diverted from their work in connection with this department in relieving the nursing force at the City Hospital and rendering their services at the City Jail and Camp Dix. Again, during the year of 1918 the industrial conditions were such that a great many people, and especially those of the working class, were compelled to make as much money as they could, were prone to disregard their health and become somewhat neglectful.

With the demand for labor continually increasing, there was a great influx of Southern negro workers. The housing conditions resulting from the lack of accommodations were appalling and they were matters of common knowledge. The department, therefore, thought it best to establish a colored clinic, and a colored physician and nurse to follow up the cases, were placed in charge. Seven hundred

and twelve patients were treated at this clinic during the year, thus demonstrating the great need of abating the disease among the colored population, who, because of economic circumstances and lack of education, are more susceptible to this disease. During the year a great deal of work was rendered to the clinics by the American Red Cross. This organization undertook the care of children from and to the clinics, and in many cases aided the work of this department. A great number of children who attended the clinics were found to suffer from the lack of nourishment. These children were given milk and crackers. The milk is no item of expense to the mother, as it is furnished by the city, and the cost of the crackers is some other way.

The Laryngeal Clinic has greatly developed, and every patient who is examined for admission to a hospital or dispensary must undergo a pre-examination at this clinic. Those who are in need of immediate treatment are given it.

FIELD WORK

Notwithstanding the fact that frequently during the epidemic our nurses were taken from their work in the department, the number of cases discovered in the field were one thousand one hundred eighty-six, less than those of 1917, and three hundred and fifty-six, less than those of 1916. While the nurses are making more than formerly, they received rigid instructions as to sanitary and hygienic conditions. Very valuable assistance has also been furnished in this respect by charitable organizations.

A survey was conducted in the Third Ward by the nurses and eighty-nine suspected cases were discovered. A block survey was conducted in the First Ward, where forty-three cases were found in twenty-three houses in one city block, thus showing how rapidly this disease spreads from home to home where no supervision can be given, owing to the

lack of nurses for the intensive work necessary to eradicate the disease. I here wish to emphasize the importance of the duties of the visiting nurses, for upon them, to a great extent, depends the prevention and the spreading of the disease. They must visit the afflicted time and time again and impress upon him the necessity of proper hygienic conditions and to see that instructions given to the patient by the physician are properly carried out.

The department contemplates engaging the services of a trained dietician to instruct the families of the patients how to purchase and prepare the proper foods economically. In the vast majority of cases, extreme poverty exists, and not infrequently the bread winner of the family is the person afflicted, making charity frequently necessary. With the instructions of a trained dietician, who could teach the housekeeper to purchase and prepare food, and to eliminate waste, charitable relief in a great many cases, might become unnecessary.

I am happy to say that the prospects of greater development in the work of this department are very bright. During the year many improvements have been made and the need of others realized and soon to be obtained. The work of this department should be extended because of the housing conditions of the present day and the lack of education on the part of the patients.

It is satisfactory to state that the contemplated construction by the Board of Freeholders of a sanatorium to accommodate all the patients of the county who are in need of sanitarium treatment will do much to lessen the possibility of the spreading evil.

It is essential, however, in the fight against tuberculosis to consider the local conditions to be met. As the result of careful study the following chart is an outline of the basic foundation upon which our work will have to be framed to properly care for the situation in our midst:



REPORTING.

It is essential that every case of tuberculosis, whether the patient has his own physician or not, be immediately reported to the Department of Health, and all physicians are required to do so by law to safeguard the public.

Immediately upon receiving a report of a case, a nurse is sent to investigate the home conditions of the patient. These nurses are specially trained and directed to look into and correct the following conditions:

1. The housing of the patient, sleeping quarters, ventilation and physical conditions of the home that may influence the recovery of the patient.

2. To prevent the spread of the disease by instructing the members of the family, and to correct such sanitary conditions as may be required, particular attention being given to the disposal of the sputum and other infective discharges of the patient.

3. In many instances the education of the patient by the nurse renders the patient previously a dangerous source of infection a harmless and intelligent fighter against the disease. It is proposed to employ foreign language speaking nurses, as there are a great number of foreigners unable to speak English who are afflicted with tuberculosis. This will enable a more thorough understanding to exist between patient and nurse which, needless to say, is of great importance.

4. In the event of the patient not being under the care of a physician, he will be advised to come to the clinic and bring the children and other members of the family for an examination to determine their physical condition and liability to infection.

... of the patient are ... the duty of the nurse to ... the medical attention or to send them to the clinic for the purpose of examining ...

... patient can receive the benefit of a sanatorium open air regime in the home

FORCIBLE REMOVAL

Should any home patient, however, refuse or neglect to take the proper care of himself and thereby endanger the ... large, that fact will be reported to the Department of Health, who, when necessary, have the power to forcibly remove the patient to a suitable hospital or sanatorium.

CLINICS

When patients are directed to the Department Clinics the physician in charge will assign them to the specific clinics instituted for each type of the disease

1 The Colored Clinic is exclusively for negroes and is conducted by a colored physician and colored nurse.

Patients suffering from laryngeal tuberculosis are treated in the Laryngeal Clinic

3 Children are referred to the Children's Clinic where certain necessities tending to improve their general health, such as milk, ... and other food, are provided free. The children are brought to and from the clinics from all over the city, in this way receiving the benefit of special diagnosis and treatment under virtually hospital conditions.

4 It is proposed that a night clinic be established for patients who, because of their economic conditions, are com

pelled to work and who can only visit the clinic after working hours.

5. It is also proposed that an industrial clinic be established whereby all persons who handle food or other necessities of life shall be examined for tuberculosis. Incidentally, all industrial plants or other places where large numbers of men are employed should have clinics and all employees be examined periodically.

These measures will protect the health of the worker and also give him an opportunity of having the disease detected in its incipency. Such a course will prevent eventual financial loss to the community and save many workers months of suffering from a wasting illness.

LOCAL CLINICS

There is a great need of clinics in different parts of the city. Sufferers from tuberculosis are prevented from attending the Health Department clinics already established by reason of their distance from populous areas. There can be no doubt that in this way early cases are often neglected and become far advanced before real treatment is possible.

SANATORIA.

If the condition of the patient is such that he requires sanatorium or hospital treatment, he is either referred to Soho, Verona or Glen Gardner. It is regrettable that the number of beds at these institutions is not adequate for the demand for admission, but confidence lies in the fact that the Board of Freeholders have under consideration the erection of a modern sanatorium at Verona, where sufficient accommodations for all patients can be expected.

CONVALESCENT HOSPITAL

It has been suggested that the department establish a convalescent hospital where patients could be placed for proper

observation until a positive diagnosis has been made, and do not permit the infected person to continue his work due to expiration of time.

CO-OPERATION OF CHARITIES.

If a patient who is the support of a family is sent to any of the institutions or who by reason of his condition is unable to support his family, the members of such family should be referred to the charitable organizations of the city. The department strongly advocates a system of State health insurance, whereby charitable organizations would be eliminated, obviating all the unpleasantness and inconvenience incident to their operation. But until such a system is inaugurated the charitable organizations must continue to help, and great credit is due them for their past achievements.

EMPLOYMENT BUREAU.

It is proposed that an employment bureau be established by the department, or that special arrangements be made with the Municipal Employment Bureau whereby tuberculous persons may be secured employment suited to their physical and mental states. Such an arrangement would also serve to obtain proper employment for the members of the family.

PREVENTION AND EDUCATIONAL CAMPAIGNS.

Having thus briefly explained the method of control and cure now in effect and proposed to be inaugurated by the Department of Tuberculosis, there remains to be the campaign of education and publicity, the greatest blow that can be directed against the White Plague:

Firstly, lectures which should be given quite frequently in public places or in the schools. A great deal of tuberculosis is due to ignorance and the instruction of the housewife will be of great value in improving home conditions. People should be taught the value of fresh air, which means food and

temperate habits. This campaign of education could progress considerably through the medium of moving picture. In our big city large crowds congregate at these places, and if a little lecture were thrown across the screen it would be of definite practical value.

Second—A good measure of assistance in this work could be given by the press in occasionally publishing various articles on health activities against tuberculosis.

Third—The distribution of literature printed in various languages will also serve a great purpose in contacting the public. The masses of the foreign element usually reside in congested areas, and by their very environment are more susceptible to the disease than other persons. The mode of living and housing in general can be corrected by the distribution of pamphlets and other forms of literature upon how to avoid unhealthy ways of living. A survey of known plague spots of tuberculosis throughout the city would be another useful aid, and the real cause of the situation in each particular locality ascertained.

Fourth—Children are known to be a very valuable asset in any educational health campaign. Upon being told something novel they almost invariably go home and relate what they have heard. Thus a very valuable medium of instruction can be made use of, particularly in the case of foreign, illiterate people, who cannot be reached by literature or other means.

It is an admitted fact that 90 per cent. of all children have tuberculosis in one form or another, and the great majority of acquired tuberculosis in adult life can be traced back to some infection during childhood. The health and welfare of the future generation should be the greatest concern of the community. The city of Newark has grown considerably within the last few years, and congested districts are becoming quite numerous, where children are compelled to

live by reason of economic circumstances. These children, in order to develop properly, must not only have proper nourishment, but plenty of good, fresh air and light, and the creation of day camps where children can come during the day and obtain rest, good food and fresh air. The roofs of public buildings could be utilized for this purpose.

A floating hospital or camp could be established where exposed children of pre-tuberculous children would be kept during the day. A very necessary provision in our health reform bill should be a preventorium where children can be taken away from surroundings where they are exposed to the infection of their fathers or mothers and be kept until their vitality is strong enough to fight off the disease.

In conclusion, the self evident truth that an ounce of prevention is worth a pound of cure should ever be kept in mind. Local activities have been centered too closely upon the cure and comparatively little has been done in the way of prevention. The menace should not only be met but extirpated. In a city like Newark, in which the growth is so rapid, new health problems will arise with its expansion. Hygienic problems must be considered in the light of modern events, and the methods adapted to meet them employed to the utmost of our capacity.

Respectfully submitted,

M. J. FINE, M. D.,

Acting Chief, Tuberculosis Division

REPORT OF TUBERCULOSIS WORK 1918

Number of tuberculosis cases reported	1962
Tuberculosis deaths	798
Positive sputum cases	493
Nurses visits	11,490
Tuberculosis cases of children who should be in sanatorium	258
Children who should go to open-air school	351
Number of exposed children in city	2,151
Number of children accommodated at School for Tuberculous Children	48
Examinations at clinics	3,718
Laryngeal clinic	358
Colored patients examined at clinic	712
Patients sent to City Hospital	56
Patients sent to St. Michael's Hospital	83
Patients referred to Soho clinic	276
Patients referred to Glen Gardner clinic	348
Patients referred to Verona clinic	259
Children referred to Open Air School	338
Families referred to Bureau of Charities	88
Families referred to Overseer of the Poor	88
Cases referred for widows' pensions	64
Soldiers Reported from Draft Boards—	
Rejected soldiers examined at clinic	31
Total number reported by State Board	1,211
Examined and reported by private physicians	27
Patients removed from city, unable to locate	15
Cases visited, but not examined	41
Cases not found	7

OCCUPATIONS OF TUBERCULOSIS PATIENTS FOR
YEAR 1918.

Housework	11	Barriers	1
Factory hands	10	Rooters	1
Laborers	10	Bookkeepers	1
	1	Conductors	1
	5	Motormen	11
Machinists	1		11
Tailors	5		16
Leather workers	56		16
Salesmen	53		9
Carpenters	50		9
Barbers	48		8
Waiters	47		8
Painters	45		8
Cooks	43		7
Electricians	41		7
Engineers	39		6
Peddlers	41		6
Saleswomen	37		5
Cigarmakers	38		5
	3		4
	1		4
Bakers	33		4
Laundry workers	31		3
Bartenders	30		3
Dishwashers	29		3
Printers	27		2
Plumbers	24		2
Cutlery workers	21		2
Steel workers	21		1
Brakemen	19		

ANNUAL REPORT

OF THE

Division of Child Hygiene

STATISTICAL SUMMARY

1918 INFANT MORTALITY RATE.

A. Deaths under one year per 1,000 births:	
1. For entire city	104.7
2. For infants supervised by Division	72.4
B. Deaths under one month per 1,000 births:	
1. For entire city	39.3
2. For infants of mothers who received prenatal care from Division	18.6
C. Still-births per 1,000 living births:	
1. For entire city	46.1
2. For infants of mothers who received prenatal care from Division	24.8
D. Puerperal deaths per 1,000 deliveries:	
1. For entire city	4.6
2. For mothers who received prenatal care from Division	10.3
E. Total births	
Total deaths under one year	8
Total deaths under one month	456
Total still births	838
Total puerperal deaths	53
Attended by midwives at any time	9
Attended by physicians	44
F. Infant mortality rate of ten of the largest cities:	
City.	Rate
New York City	92.0
St. Louis	94.4
Cleveland	95.4
Detroit	108.7
Newark	114.7
Philadelphia	111.1
Boston	115.4
Buffalo	121.5
Chicago	132.1
Baltimore	147.7

ANNUAL REPORT
OF THE
Division of Child Hygiene

Dr. Charles F. Craster, D. P. H., Health Officer:

DEAR SIR:—I herewith present the report of this division for the year 1918.

A study of the infant mortality for 1918 and the given causes of deaths of infants under one year shows that the babies have suffered very severely from the two epidemics that have visited Newark during the past year.

The first fact that impresses us is the considerable increase in the infant mortality rate for 1918, the highest in the city of Newark since 1911, and that more babies died in 1918 than in any year since 1910.

If we analyze the deaths of infants under one year by the month in which they died, we find that almost from the very beginning of the year there was a considerable increase in the number of deaths in 1918 over the same months in 1917, fewer deaths for particular months having been reported only in August and September. The greatest increase, however, for one month in 1918 occurred in October, the month in which the influenza epidemic was at its height, where there was an increase of 90 per cent in the deaths under one year over those in the same month of 1917.

The explanation for this continued increase in deaths under one year in 1918 can be found by a closer analysis of the given causes of deaths. Almost the entire increase in

the first part of the year is explained by the deaths resulting from the epidemic of measles and its complications. In 1918 there were thirty three deaths from this cause, while in 1917 there were none.

In addition, during the first four months of 1918 there were thirty six more deaths from respiratory diseases than there were in 1917. These deaths, ordinarily ascribed to bronchitis and pneumonia, should more accurately and correctly be charged to the epidemic of measles, of which they were the direct result.

In October and November we again have a considerable increase in deaths from pneumonia, which were directly associated with the epidemic of influenza, seventy deaths having been ascribed to pneumonia and influenza in October and November of 1918, while seventeen were given for the same months in 1917, showing an increase of 309 per cent. This considerable number of deaths during October and November which appear in the death records as due to influenza and pneumonia require more careful analysis. It has been generally held that at least in the beginning of the epidemic young children were very slightly affected by influenza.

It will be found that these deaths were really due to lack of care, as the large amount of sickness and the great number of deaths among mothers, particularly during and immediately after childbirth, produced many premature and immature births, necessitated the placing of many young infants on artificial feeding and created a condition whereby babies were being shifted about from relatives to hospital and various institutions.

This very great increase in the deaths of young infants clearly demonstrates once more that young infants will not survive artificial feeding, excessive handling and exposure, and that they do not seem to be benefited by the ordinary institutional and hospital care.

The experience with influenza has pointed out how dependent an infant is on the immediate and proper care in the home during the first weeks of life, and would indicate the wisdom of following up closely every family in which the mother is seriously ill or dies, so that we may insure prompt and proper care for the infant.

From the standpoint of preventive child hygiene work, it is very interesting to know that from the very beginning of the year there was but a slight increase in the deaths ascribed to congenital debility, and that the number of months there was a marked excess. This is still the more remarkable because all workers in child hygiene have commented upon the difficulty of reducing the deaths placed in this classification, and ordinarily ascribed to the conditions that obtain before the baby's birth. At the close of the year 1917, on October and November there was again noticeable marked increase in congenital debility, which is readily understood to be due to the great number of fevers of women in child-birth, and also to the great amount of sickness that was present among expectant mothers and families, which undoubtedly interfered seriously with the healthfulness and the proper care of young infants.

A study of the babies who received supervision from the nurses of the division shows that these babies suffered less from the epidemic of measles and the epidemic of influenza than the babies in the city of New York as a whole, for while there is an increase in the mortality rate of the babies under the supervision of this division, the increase is 11.0 per thousand over the previous year, in contrast to an increase of 17.1 per thousand for the entire city.

It is gratifying to find that the death rate for the babies under supervision of the division was 32.0 per thousand, lower than that of the city. It would appear then from the experience during the past year, that the preventive child

Inspection of the city of Newark through its Division of Child Hygiene is probably the most effective method of preventing the ravages of epidemics. The department has also taken others the proper care of babies, such as a mother and health and resistance of the child. It is also for the infants to assist the mother in her care. In the future, further efforts will be made to the most immediate and effective of the department's work. In the future, the department will extend the preventive child hygiene work that increases the knowledge of parents and develops the resistance and nutrition of babies.

These conclusions are strengthened by a recognition of the fact that the results of the department were obtained in those neighborhoods and with those families where one would expect the epidemic to have found the most susceptible child, and that the results are most difficult to obtain.

NURSES' ACTIVITIES

A review of the work of the nurses in the division will show that they are carrying on with great economy of time and expense many activities that protect maternal and child life. The program as now developed assures continuous supervision from the prenatal period up to the time when the child enters the school and comes under the supervision of the Medical Inspection Department of the Board of Education.

It will be noticed that nurses are also contributing to the efforts of the department to improve housing and unsanitary conditions and to cure and eliminate venereal disease, as whenever a positive Wasserman is found in an infant or an eye smear shows the gonococcus, the family is referred to the Bureau of Venereal Diseases.

ADDITIONAL CLINICS.

In the First Ward in addition to the regularly conducted consultation station for well babies, we have organized a prenatal clinic, a special clinic for the prevention and treatment of whooping cough, and a sick children's clinic. These three clinics were established because there are practically no hospital or dispensary resources in the neighborhood and it has been found that whooping cough and the ordinary illnesses of childhood contribute considerably to the sickness and death of this neighborhood.

PRE-SCHOOL CLINIC

The supervision and examination of the children of the pre-school age has been more effectively organized and developed. The importance of this work can be gathered from the record of our first 200 children examined, in which it was found that 14 per cent. were suffering from enlarged tonsils, 11 per cent. from defective teeth, 8 per cent. from rickets, 15 per cent. from various degrees of malnutrition, poor hygiene and improper diet, and 28 per cent. from defects of the spine.

The value of this work is to be measured from the two-fold standard of health and education, for as we succeed in preventing and removing defects in children of the pre-school age, their healthfulness will be increased during the pre-adolescent growing period and they will be better fitted to benefit by the education that is to be given to them when they enter school, in addition to the fact that many days of absence will be prevented.

NURSES' ACTIVITIES

Supervised babies	46
Nurses	2,567
Visits	345
Expectant mothers receiving prenatal care	1,48
Members of Little Mothers' Leagues	24
Attendance at Little Mothers' Leagues	34
Bad housing conditions reported	34
Contagious diseases reported	36
Older Children—	
Defects detected	
Defects corrected	5
Weight tests on infant	2
Results—Positive	1
Negative	
Eye mears taken	5
Results—Positive	5
Clinic Attendance—	
Pre-school	42
Prenatal	7
Sick children	2
Whooping cough	55

RESULTS OF PRENATAL SUPERVISION

1918.

Total number of expectant mothers who received prenatal care	1,058
Cases carried over from 1917	391
New cases during 1918	667
Pregnancies ended	497
Miscarriages	14
Mothers delivered	483
By midwives	396—81.9%
By physicians	55 11.3%
In hospitals	32— 6.6%
No attendant	0—0
	Percent of Deliveries
Living births	472 97.3%
Attendant—Midwife	389
Physicians	51
Hospitals	32
No attendant	0
	Rate per 1,000 Deliveries
Still births	12 24.8%
Attendant—Midwife	8
Physician	4
Hospital	0
Deaths of infants during the first month	9—18.6%
Attendant—Midwife	9
Puerperal deaths	*5—10.3%
Attendant—Midwife	3
Physicians	0
Hospitals	2

* Two puerperal deaths due to influenza

MATERNAL NURSING

Maternal nursing is still made the central feature of our efforts to reduce infant mortality, and we are pleased to report that even in the face of the influenza epidemic we were able to increase the percentage of breast-fed babies over previous year, as can be seen by a comparison of the percentage of breast-fed babies under six months of age for the years 1917 and 1918.

FEEDING OF SUPERVISED BABIES

CY OF SUPERVISION OF BABIES ON FEEDING

<i>Perinatal Cases—</i>		1918
Living at end of the first month		463
Total cases—		484—85
Infants partially breast-fed at end of first month		1—0.2%
Infants entirely artificially fed at end of first month		8—1.7%
<i>Birth Record Cases—</i>		1918 1917
Number of terminated cases	1,431	1,219
Infants entirely breast-fed at 6 mos	1,250 87.3%	1,054—82.4%
Infants partially breast-fed at 6 mos	148 10.3%	115—13.5%
Infants entirely artificially fed at 6 mos	33 2.3%	50—4.1%

BOARDING HOME SUPERVISION

Our experience during the past year shows that boarding out of babies in foster-homes is still the best solution for the baby that, for one reason or another, cannot be taken care of by its natural guardian and in its own home. The great difficulty is to obtain a sufficient number of homes. A special effort is being made to obtain the co-operation of various church organizations in the hope that a larger number of families will offer to take care of one child.

If Newark succeeds in obtaining a sufficient number of foster homes for infants it will not only give these babies a better chance to live and to obtain the spiritual and mental stimulation that only family life can give to a child, but it will reduce considerably the number of dependent children in the city. It will also reduce the number of children in institutions.

FOUNDLINGS AND UNMARRIED MOTHER PROBLEM.

Following a plan adopted at a conference with the interested social workers in the latter part of last year, the department has continued its work with the unmarried mothers. This year, through the co-operation of all the hospitals of the city and the Church Mission of Help, the work has been extended so as to include practically every unmarried mother delivered at any hospital in the city.

As our principal purpose is to keep mother and baby together and to help the girl to return to her family, a short summary of this phase of the work will indicate what has been accomplished. Of 113 girls coming under our care, 103 were returned to their parents or relatives with the baby and five were returned to relatives or friends without the baby, eleven married the father of the baby. One who is unable with the difficulties of these these girls after they leave the hospital and the weak hold these babies have upon them especially after they are separated from their mother all recognize the needfulness and economy of this preventive health work. The Convalescent Home at 15 Hill, for which social workers in the City of Newark have been striving through three administrations, is about to be established. It is believed that this will be the final link in our chain of reconstruction for these mothers and babies.

BOARDING HOMES.

Requests for boarding homes	168
Placed in licensed boarding homes	76
Other solution	92
Infants boarded out	85
Infants in boarding home at the end of the year	42
Infants taken home by parents	22
Infants taken home by relatives	2
Infants placed in institutions	2
Infants placed out for adoption	0
Sick children	13
Deaths	6

REGULATION OF MIDWIVES

The most important addition to our supervision and regulation of midwifery practice is the ordinance passed by the Newark City Commission in May of this year, which requires every midwife to register with the Department of Health annually and gives to the department power to make whatever rules and regulations seem desirable to protect maternal and infant life.

The principal difficulty in midwifery practice still seems to be an over-zealousness on the part of midwives to assume the prerogatives of practitioners of medicine, and several have been summoned to court for the purpose of giving hypodermic injections or pituitrin.

The general standard of practice is steadily improving and the midwives are showing a greater desire to co-operate, not only by conforming to the rules and regulations regarding their own practice, but also by instructing the mothers in the essentials of infant hygiene as laid down by this department.

Licensed midwives	100
Licensed during year	3
License revoked during year	1
Cases against midwives pending in court	2
For abortion	1
For administering medicine	1

PREVENTION OF BLINDNESS.

The number of cases of ophthalmia neonatorum reported to the division is about the same as in previous years. The treatment of these cases and supervising their cure has been continued. It is gratifying to report that no case of blindness has resulted and that all but four were completely cured before the end of the year, two having died and two still being under treatment and improving.

OPHTHALMIA NEONATORUM

Cases referred to Division for investigation and supervision ..	23
Cured	21
Died	*2
Improving	2
Probably blind	0
Treatment—	
In hospital	3
Entirely at home	16
At Dispensary	3
At home and Dispensary	3
Attendant at birth—Midwife	15
Silver Nitrate Used—	
Midwife Cases— Yes	13
No	2
Physician Cases—Yes	5
No	4
No Attendant - No	1

TRACHOMA

Cases referred to Division for investigation and supervision	2
Cured	2
Treatment—At Dispensary	2
* Deaths due to pneumonia	

COAL

The division has been considerably helped in its work to protect infants during the extreme weather of the past winter by the successful efforts of the department to supply coal to the families who were unable to obtain it otherwise. This work undoubtedly enabled us to save the lives of many young infants.

INFLUENZA EPIDEMIC

As soon as it was learned that a considerable number of children were being left through the death of parents effected by the influenza epidemic, the resources of the entire department were used to make a quick survey of the condition of the children. This material has served as a basis for the proper care of the children and has been placed at the disposal of the Council of Philanthropy.

While at first those families were visited in which parents died, the plan was extended so as to include cases of sickness. A plan was determined upon after we learned that many infants were dying from lack of care and general neglect on account of sickness affecting so many members of the family.

After conference with the chairman of the local chapter of the Red Cross, a hospital was established in the Emergency Hospital for those infants and children that could not receive proper care at home on account of sickness or death in the family.

CO-OPERATION.

Inasmuch as sufficient funds have not been available to take care of all the babies in the City of Newark that should receive the benefit of child hygiene supervision, attempts have been made to have some of the work done by volunteer workers or organizations, and a plan was proposed whereby those who wish to help save the babies of Newark can conduct consultation stations and visit mothers under the direction and supervision of the Department of Health, until such time as the funds would permit having this work done by paid workers of the department.

This plan has been carried out most successfully in co-operation with the Holy Angel Day Nursery, with a corps of volunteer workers.

Somewhat similar work has been done with the Silver Child Welfare Society, which nurse then employs visits the new-born babies of certain districts in that vicinity, reports to the division office, and regularly attends to the needs of the babies and the benefits of the department's supervision.

Respectfully submitted,

JULIUS LEVY, M. D.

Special Tables of Vital Statistics

FOR THE YEAR 1918

To Dr Charles L. Craster, Health Officer

DEAR SIR: I herewith respectfully submit the records of
Vital Statistics for the year 1918.

Respectfully yours,

ELBERT S. BALL,

Clerk in Charge of Vital Statistics

GENERAL TABLE NO. 1 (1918)

Deaths in City Hospital and the Sanatoriums at Soho and Verona, New Jersey

AGES	WARDS																Total
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	
Under 1 year																	
Males	68	18	45	16	60	21	37	27	30	54	16	71	36	65	20	28	623
Females	51	16	44	14	56	12	26	20	28	51	21	61	40	62	22	16	548
Between 1 and 4																	
Males	73	9	34	6	49	14	12	19	7	41	12	43	22	43	17	16	416
Females	57	8	35	6	41	1	9	1	1	1	3	11	4	11	11	4	376
Between 5 and 9																	
Males	13	3	11	4	5	5	3	5	4	9	5	10	8	8	4	5	96
Females	12	2	8	1	11	3	5	13	1	2	4	8	7	8	5	6	95
Between 10 and 14																	
Males	3	1	8	3	3	2	3	9	6	1	2	8	2	5	2	5	63
Females	5	3	4	2	3	1	2	4	5	9	1	5	4	5	2	4	51
Between 15 and 19																	
Males	14	2	14	5	7	7	6	3	8	6	3	9	8	12	7	5	119
Females	11	2	6	2	9	14	4	10	7	11	6	8	6	15	9	9	132
Between 20 and 24																	
Males	18	13	10	10	7	9	19	9	16	8	4	17	20	20	6	17	203
Females	21	10	9	5	19	15	13	14	15	9	17	10	25	35	15	14	239
Between 25 and 29																	
Males	24	20	13	23	16	19	11	18	21	12	29	24	20	6	24	311	
Females	26	19	31	9	20	15	10	19	22	12	9	20	34	30	14	23	313
Between 30 and 34																	
Males	24	36	15	27	19	21	14	27	26	10	27	32	27	11	27	376	
Females	1	16	22	6	11	16	14	15	23	12	17	15	21	21	2	21	276

GENERAL TABLE NO. 1 (1918) *Continued*

Deaths from all causes, not including non-resident or unknown deaths, by wards, age and sex including deaths in City Hospital and the Sanatoriums at Somers and Verona, New Jersey

AGE	WARDS																Total
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	
Between 1 and 4—																	
Males	8	4	3	13	28	13	8	16	18	15	7	26	14	3	15	16	292
Females	11	2	10	9	20	12	5		11	11	7	11	13	9	1	17	174
Between 40 and 44—																	
Males	8	17	7	17	11			10	11	17	6	31	14	13	17	11	231
Females	9	3	11	7	25	9	7	8	14	8	11	11	14	14	7	7	155
Between 45 and 49—																	
Males	18	13	4	1		8	7	8	1	16	11	15	15	10	9	8	204
Females		1	7	6	5	6	13	1	4	1	9	2	11	13	4	5	112
Between 50 and 54—																	
Males	16	5	8	24	1	9	6			8	1	7	11	12	1	11	171
Females	7	12	20	8	8	14	5	13	14	5	11	6	20	10	7	13	173
Between 55 and 59—																	
Males	15	15	12	16	18	12	12	17	16	11	5	10	20	15	13	18	225
Females	8	11	11	6	7	6	6	11	8	6	9	7	15	12		1	170
Between 60 and 64—																	
Males	16	17	14	18	10	12	10	19	19	5	18	13	12	21	9	14	229
Females	13	14	13		7	7	10	7	16	6	6	4	16	9	6	13	160
Between 65 and 69—																	
Males	19	17	14	5	10	7	9	12	17	8	13	14	13	10	7	13	179
Females	17	6	10	4	5	8	8	14	13	8	21	9	11	12	10	21	177
Between 70 and 74—																	
Males	8	9	8	2	8	9	8	15	23	6	17	12	11	9	8	15	173
Females	12	10	7	11	4	12	6	16	13	4	17	1	13	12	4	15	148

GENERAL TABLE NO. 1 (1918) —Continued.

Deaths of persons of unknown race or unknown death records, as well as deaths of persons of unknown race, total in the San Francisco, S. S., and Veterans' New Jersey.

Age &	WARDS												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
Between 75 and 79													
Males		4	5				15	7	6	5	4	7	85
Females	4		4	1	1		10	15	5	16	3	9	100
Between 80 and 84													
Males		4					8	2		7		1	20
Females	8		1	4	1	1	1		2	11	2	4	40
Between 85 and 89													
Males		5								2			20
Females			1		4	4	5	1	7	7	4	1	40
Ninety and over													
Males		5					4				2		10
Females							1	1	2		1		4
TOTALS		10	10	5	5	1	3	12	8	22	11	14	100
Males	10	4	5	1	1	1	17	8	11	13	6	14	100
Females	10	6	5	4	4	0	15	4	7	9	5	10	100

TABLE 1. PRINCIPAL CAUSES OF DEATH BY SEX, AGE, AND COLOR
NON RESIDENTS

CAUSES	Not white	Col- ored	White deaths	Col- ored deaths	Males	Females	Under 1 Year	1 to 5 Years	5 to 14 Years	14 to 24 Years	24 to 44 Years	44 to 64 Years	64 and Over		
Total Diseases			48	44	160	194	42	5	3	5	10	48	171	123	52
Infantile Paralysis															
Typhoid Fever			1	1	1								1		
Malaria															
Scarlet Fever															
Measles															
Whooping Cough															
Diphtheria															
Epidemic Meningitis (Cerebro Spinal)			1	1	1										
Other Epidemic Diseases															
Tuberculosis of Lungs (Consumption)			1	5	8	1	1			1				4	
Tuberculosis Meningitis					3										
Other Tuberculosis			1		2									1	
Cancer Malignant Tumors			1	15	7	1							4		7
Simple Malignant			1	1	1			1							
Apoplexy, Softening of the Brain			13		6	1									5
Organic Heart Diseases			30		18	1								1	6
Bronchitis			2	2	1										
Pneumonia, Lobar	4		66	10	40	30	1	2	1	4					5
Pneumonia Broncho			6	6	1	3									2
Other Respiratory Diseases															
Diseases of Stomach (Cancer excepted)															
Diarrhoeal Diseases (under 5 years)			1	9	4	3	6			9					
Appendicitis and Typhilitis						1								4	1
Hernia, Intestinal Obstruction			5	15	4	11	2					1		4	3
Cirrhosis of Liver				2											
Bright's Disease and Nephritis			25	26	16	10							5	1	5
Diseases of Women (not Cancer)															
Puerperal Septicæmia			1	1									1		
Other Puerperal Diseases			5	5		5							5		
Congenital Debility and Malformation	1		26	2	19	15	27			27					
Old Age	1					2									
Accident			41	41	53	8			1	1	2	5	85	14	4
Homicide													2	1	
Self						1								1	
Undefined Causes															
All Other Causes			10	17	8	27	2	1		3	1	3	19	20	11
Totals for 1917	1		114	38	145	145	75	4		34	15	50	90	101	20

MORTALITY FROM LINGUIAL CAUSES OF DEATH BY SEX AGE AND COLOR
UNKNOWN ADDRESSES AND UNIDENTIFIED PERSONS

Cause of Death	1917		1918		1919		1920		1921		1922		1923		1924		1925		Total
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	
All Causes	1,099	127.1	1,187	137.7	96	41.1	11	2.2	2	0.4	13	2.9	9	1.9	3	0.6	4	0.8	1,341
Diseases	899	103.4	987	112.4	76	33.4	10	2.1	2	0.4	12	2.6	8	1.7	3	0.6	4	0.8	1,109
Infectious	150	17.1	121	13.9	59	26.1	3	0.6	—	—	3	0.6	4	0.8	8	1.7	35	7.5	365
Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Infectious	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Non-infectious	749	86.3	866	98.5	21	9.5	7	1.5	—	—	—	—	—	—	—	—	—	—	230
Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cancer	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stroke	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Heart Disease	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diabetes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hypertension	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-infectious	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Injuries	199	22.7	200	22.8	20	8.7	1	0.2	—	—	—	—	—	—	—	—	—	—	42
Accident	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Homicide	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Suicide	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Undefined Causes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
All Other Causes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals for 1917	1,099	127.1	1,187	137.7	96	41.1	11	2.2	2	0.4	13	2.9	9	1.9	3	0.6	4	0.8	1,341

TOTALS FOR THE YEAR 1917

CAUSES	Under 5 Years	Colored	White	Total	Males	Females	Under 1 Year	1 and Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over			
Joint & Cancer		612	286	898	468	395	145	444	434	402	4	790	2368	1124	1245	
Infantile Paralysis			6	6	5	1	1		3	4						
Typhoid Fever			15	15	9	6			1	1	2	5	5	1	1	
Malaria																
Smallpox																
Measles		9	111	120	55	65	33	48	94	115	4	1				
Scarlet Fever									6	6	2	2	1			
Whooping Cough		13	41	54	17	37	23	14	16		1					
Diphtheria		3	79	82	47	35	6	19	34	59	21		1		1	
Scarlet		30	1337	1367	698	689	52	49	84	185	72	271	703	122	34	
Epidemic Meningitis (Cerebro Spinal)		4	41	45	29	16	11	13	8				6			
Other Epidemic Diseases			1	1												
Tuberculosis of Lungs (Consumption)			623	683	474	411	1	1	2	4	2	14	325	1	5	
Tuberculous Meningitis		5	56	61	34	27	13	8	21	42	11	4	2	2		
Other Tuberculosis		17	47	64	31	33	4				1	10	10	17		
Cancer Mammary Gland																
Scalp Meningitis																
Epilepsy Softening of the Brain																
Organic Heart Diseases																
Asthma																
Pneumonia, Lobar			16	16	8	8	64	30	13	127	4	1	4			
Pneumonia Broncho		112	917	1029	570	459	57	64	49	170		4	44	166	68	
Other Respiratory Diseases			430	430	229	201	94	6	6	250	17		174	3	28	
Diseases of Stomach (Cancer except)			64	64	4	4	16	4		25			14		8	
Intestinal Diseases (Under 5 years)			209	209	134	209	0	8	33						20	
Appendicitis and Typhlitis			1	44												
Hernia Intestinal Obstruction																
Cirrhosis of Liver		4	45	51	44	7			3	11	2		21	18	10	
Bright's Disease and Nephritis																
Diseases of Women (not Cancer)		1	5	6			5	2	3	10	5	14	102	268	293	
Puerperal Septicemia		3	8	11									3	3		
Other Puerperal Diseases			17	42									5	6		
Congenital Deformity and Malformation			411	447	230	203	442						5	37		
Old Age			27	27	9	18										
Accident		34	354	380	297	92	10	10	38	48	40	38	135	97	23	
Homicide		1	19	20	19	1	3				8	1	2	1	3	
Suicide		1	49	50	32	18						1	5	15	21	
Ill-defined Causes			1	2	1	1		1							5	
All Other Causes		4	560	564	310	254	4	11	86			3	180	72	195	
Total for 1917			652	747	695	577	634	1024	914	179	1461	737	340	1271	1637	1915

The death rate for the year was 19.7 per 1,000 of population, as against 15.3 for the previous year. The present population of Newark is estimated for these calculations at 430,000. The death rate for the year 1916 was 16.

MORTALITY FROM INFANTILE AND OTHER FEVERS IN THE
FIRST WARD

CAUSES	Ye. 1900	Col 1901	White 1902	Total 1903	Males 1904	Females 1905	Under 1 1906	1 and 2 1907	2 and 3 1908	Under 4 1909	5 to 6 1910	5 to 6 1911	25 to 44 1912	45 to 64 1913	65 and over 1914
Total, all causes	50	643	693	309	324	125	81	64	279	32	63	154	107	67	
Infantile Paralysis															
Typhoid Fever		3	3	2	1					1	2				
M. S.															
Smallpox															
Measles		27	27	13	14	8	14	6	27						
Scarlet Fever															
Whooping Cough		1	1		1	1			1						
Diphtheria		14	14	10	4	1	6	6	13						1
Influenza	5	136	11	32	30	1	7	11	21	10	22	47	5	6	
Other Epidemic Diseases		4					1		4						
Chronic Diseases of Lungs (Consumption)	6	42	47	25	22			1	1	1	11	22	10	2	
Tuberculous Meningitis		5	8	5	8		2	8	7	1					
Other Tuberculosis	1	2	3	3							1		1		
Cancer, Malignant Tumor	20	20	8	18								8	12	6	
Simple Meningitis	4	4	8	1	1	1	2		8				1		
Apoplexy, Softening of the Brain	15	15	3	13									6	12	
Organic Heart Diseases	6	43	49	25	24	6			6	2	1	8	17	15	
Bronchitis	8	18	21	9	12	9	4		13	1	1	1	4	1	
Pneumonia, Lobar	8	92	100	72	28	1	17	9	34	3	16	32	12	9	
Pneumonia, Broncho	4	50	54	24	30	11	17	12	40	2	2	4	8	3	
Other Respiratory Diseases			5	3	2	1	1		2			1	1	1	
Diarrhoeal Diseases (under 5 years)	2	30	38	20	15	25	5	6	38						
Appendicitis and Peritonitis															
Hernia, Intestinal Obstruction		2	2	2					1	1			1		
Cholera		3													
Cholera, Asiatic, Non-Fatal	3	26	29	12	17					1		6	13	9	
Diseases of Women and Children															
Septicæmia		1	1		1							1			
Other Septicæmia															
Other Septicæmia	1	37													
Other Septicæmia															
Other Septicæmia	2	30					1		4		4		11	6	
Other Septicæmia															
Other Septicæmia	1	1										1	1		
Other Septicæmia															
Other Causes	4	38								4	4	16	5		
Total	49	643	693	309	324	125	81	64	279	32	63	154	107	67	

MORTALITY FROM PRINCIPAL CAUSES PATH BY SEX, AGE, AND COLOR
SECOND WARD

CAUSES	Total 1907	Total 1908	White	Total Deaths	Males	Females	Under 1 Year	From 1 to 2	Above 2 Years	Under 1 Year	From 1 to 2	Above 2 Years	Under 1 Year	From 1 to 2	Above 2 Years
Total all causes	1	74	353	468	246	162	84	6	15	35	9	27	137	119	61
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epidemic Fever	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sore throat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mumps	-	2	-	3	1	2	2	-	1	3	-	-	-	-	-
Scarlet Fever	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	4	3	7	3	4	4	-	-	9	6	1	-	-	-	-
Diphtheria	-	3	3	3	-	1	-	-	2	2	1	-	-	-	-
Epidemic	10	43	53	24	24	-	1	1	9	1	7	32	11	-	-
Other Epidemic Diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis of Lungs (Consumption)	10	50	80	47	13	-	-	-	-	-	-	10	38	38	4
Tuberculosis M.	1	-	1	1	1	1	-	-	-	-	-	-	-	-	-
Other Tuberculosis	1	1	2	1	1	-	-	-	-	-	1	-	1	-	-
Cancer	1	13	13	5	8	-	-	-	-	-	-	-	-	-	-
Simple Meningitis	-	2	2	2	2	-	-	-	1	1	-	-	1	-	-
Acute Myeloid Leukemia	9	12	31	11	11	-	-	-	-	-	-	-	-	-	-
Heart Diseases	1	82	33	17	17	-	-	-	-	-	-	9	11	14	1
Pneumonia	-	2	2	1	1	-	-	-	-	-	-	-	-	1	1
Lobar	15	51	46	32	14	-	-	1	1	1	1	5	24	14	1
Interstitial	2	1	29	1	1	-	-	-	13	-	-	-	-	-	-
Other Respiratory Diseases	1	8	4	1	1	-	-	-	1	-	-	-	-	1	2
Diseases of Stomach and Intestines	4	3	7	2	2	-	-	-	-	-	-	-	-	-	-
Dysentery (under 5 years)	-	8	8	7	1	6	1	1	3	-	-	-	-	-	-
Apoplexy	-	-	2	1	1	-	-	-	-	-	-	-	-	-	-
Hernia	2	2	4	2	2	-	-	-	-	-	-	2	1	1	-
Intestinal Obstruction	1	1	2	2	2	-	-	-	-	-	-	-	2	-	-
Cirrhosis of Liver	-	-	30	25	14	-	7	-	1	-	-	10	20	8	-
Bright's Disease and Nephritis	6	83	-	-	-	-	-	-	-	-	-	-	-	-	-
Diseases of Women (not Cancer)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scorbutic Scurvy	1	-	1	1	1	-	-	-	-	-	1	-	-	-	-
Other Puercal Diseases	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-
Congenital Deformities	9	11	11	8	6	14	-	-	-	-	-	-	-	-	-
Old Age	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accident	1	3	18	22	17	5	-	-	-	-	-	-	9	2	-
Homicide	-	1	1	1	1	-	-	-	-	-	-	-	1	-	-
Spindle	-	5	5	1	4	-	-	-	-	-	-	-	1	1	-
Unidentified Causes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Other Causes	2	26	28	14	14	1	-	-	1	1	1	6	9	11	-
Total	74	353	468	246	162	84	6	15	35	9	27	137	119	61	-

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
THIRD WARD[illegible]

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
FOURTH WARD

CAUSES	Yellow	Colored	White	Total deaths	Males	Females	Under 1 Year	1 and under 2	2 and under 5	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total all causes	1	33	259	293	211	82	30	4	7	46	7	26	80	109	41
Infantile Paralysis			1	1		1							1		
Typhoid Fever															
Malaria															
Smallpox															
Measles															
Scarlet Fever			2	2		2						2			
Whooping Cough		2		2		2			2	2					
Diphtheria			2	2		2			2	2					
Erysipelas		4	45	49	33	16	3		2	5	2	11	27	4	
Infantile Meningitis		1		1	1				1	1					
Other Epidemic Diseases															
Tuberculosis of Lungs (Consumption)			44	44	41	3					1	4	26	15	
Tuberculosis Meningitis															
Other Tuberculosis			2	2	1	1	1			1			1		
Cancer Malignant Tumor			10	12	7	5							1	7	4
Some Malignant													2		
Apoplexy Softening of the Brain			6	6										4	3
Other Heart Diseases	2		19	21	13	8						1	1	10	2
Bronchitis		1	4	5	1	4	3			3					2
Inflammation of Lungs		2	30	32	21	11	1		2	3	2	4	12	9	2
Pneumonia Broncho			2	2										1	
Other Respiratory Diseases			3	3									1		2
Diseases of Stomach (Cancer excepted)			1	1		1									1
Diseases of Intestines (not Cancer)			4	4		4	2			3					
Appendicitis and Typhilitis											1				
Hernia, Intestinal Obstruction			2	2									1		1
Cirrhosis of Liver			2	2		2									
Bright's Disease and Nephritis		3	33	36	26	10			1	1			2	23	10
Diseases of Women (not Cancer)			2	2		2									
Puerperal Septicæmia			1	1		1							1		
Other Puerperal Diseases															
Congenital Debility and Malformation			13	13	8	5	10			13					
Old Age															
Accident			12	12	7	5			1	1	1		4	4	2
Homicide															
Suicide			1	1										1	
Undefined Causes															
All Other Causes	2		23	25	18	7	4			4			7	9	5
Totals for 1917	1	33	259	293	211	82	35	4	7	51	8	26	87	105	46

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
SIXTH WARD

CAUSES	Yellow	Colored	White	Total	Males	Females	Under 1 year	1 and under 2	2 and under 5	Under 10 years	10 to 14	15 to 24	25 to 44	45 to 64	65 and over
Total all causes		16	24	40	17	23	1	1	1	2	7	13	71	55	
Infantile Paralysis													1		
Typhoid Fever			1	1	1										
Malaria															
Smallpox			2	2	1	1	1	1		2					
Measles															
Scarlet Fever															
Whooping Cough			1	1											
Diphtheria		1	6	7	6	1		3		5	2				
Influenza		1	78	79	27	52	2	1	3	6	1	30	83	5	1
Epidemic Meningitis (Cerebro Spinal)			1	1											
Other Epidemic Diseases															
Tuberculosis of Lungs (Consumption)		2	32	34	23	11				1	6	17	30		
Tuberculous Meningitis			3	3	2	1	1		1	2	1		1		
Other Tuberculosis			1	1	1										
Cancer, Malignant Tumor			16	16	8	8								7	9
Simple Meningitis			1	1	1		1			1					7
Apoplexy Softening of the Brain			1	1	1								1	6	7
Organic Heart Diseases		3	28	31	11	20			1	1	1	3	10	14	1
Bronchitis															
Pneumonia, Lobar															
Pneumonia, Broncho			14	14	6	8		4		4	1	1	6	1	1
Other Respiratory Diseases															
Diseases of Stomach and Cancer			1	1			1								
Diseases of Intestines (not Cancer)															
Appendicitis and Typhitis															
Hernia, Intestinal Obstruction		1	1	2	1	1								1	
Cirrhosis of Liver			3	3	1	2									
Bright's Disease and Nephritis		1	20	21	15	15						3	6	9	12
Diseases of Women (not Cancer)															
Puerperal Septicæmia															
Other Puerperal Diseases			1	1	1								1		
Conjunctivitis and Mallo							14			14					
Old Age			9	9	7	2					3	1	2	3	
Accident															
Homicide			2	2	2										
Suicide															
Undefined Causes							1	1	1	1	1	1	6	6	6
All Other Causes															
Totals for 1917			283	283	149	134	47	6	7	60	10	16	51	74	74

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
SEVEN-H WARD

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DEPARTMENT OF PUBLIC AFFAIRS

CAUSES	Ye ow	Col ored	White deaths	Total deaths	Males	Fe males	der 1 Year	Un der 2	Un der 5	5 to 14 Years	15 to 24	25 to 44	45 to 64	65 and Over
All causes	60	396	466	206	166	68	24	14	100	15	41	82	69	19
Infantile Paralysis										1				
Typhoid Fever			1	1	1									
Malaria										1				
Scarlet Fever			4	6	1	5	1	3	2	6				
Whooping Cough							1			1				
Diphtheria							1	5	1	7	1			
Epidemic Meningitis (Cerebro Spinal)			1	1	1			5	3	8	4	12	17	2
Other Epidemic Diseases								1		1				
Loss of Lungs (Consumption)	11	25	36	25	11					1	6	17	10	3
Loss of Meningitis			2	2	1			1	1	1				
Other Tuberculosis	1	5	6	3	3	1	1		2	1		1	2	
Malignant Throat			5	5	2	6						3	3	2
Scarlet Meningitis			1	1	1		1		1					
Apoplexy Softening of the Brain												2	8	4
Organic Heart Diseases	4	41	45	15	20					1	2	2	12	15
Protrusion of the Stomach	4	6	10	7			6	2	1	9			1	
Pneumonia Lobar	1	47	48	4	4				9					
Pneumonia Broncho	2	14	16	8	8	5	1	3	9	1	1	4		
Other Respiratory Diseases			3	3	2	1							2	1
Diseases of Stomach (Cancer excepted)			2	2	1	1							1	1
Diarrhoeal Diseases (under 5 years)		17	17	5	6	12	2		14					
Appendicitis and Typhilitis	1		1	1	1							1		
Hernia Intestinal Obstruction		9	9	1	1									
Cirrhosis of Liver														
Renal Disease and Nephritis	6	20	26	15	11							6	11	9
Diseases of Women (not Cancer)												1		
Puerperal Septicæmia														
Other Puerperal Diseases														
Concussion Debility and Malformation		5	5	14						16				
Old Age														
Accident		4	4	4	4	1	1		2	1	5	3	3	1
Homicide										1		2		
Suicide		1	1								1			
Undeclared Causes											1			2
All Other Causes		13	14	1	13	4			4		1	3	8	8
Totals for 1907		74	395	60	8	1			77	17	7	67	76	19

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE, AND COLOR,
EIGHTH WARD.

CAUSES	No. of Cases	Sex of Cases	White	Total Deaths	Mat- ernity	Per- cent of Total	Per Year	Per Year	Per Year	Per Year	Per Year	Per Year	Per Year	Per Year	Per Year
Total, all causes	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Infantile Paralysis															
Typhoid Fever															
Malaria															
Smallpox															
Measles															
Scarlet Fever															
Whooping Cough															
Diphtheria															
Influenza															
Epidemic Meningitis (Cerebro Spinal)															
Other Epidemic Diseases															
Tuberculosis of Lungs (Consumption)															
Tuberculous Meningitis															
Other Tuberculosis															
Cancer Malignant tumor															
Soft Meningitis															
Apoplexy Softening of the Brain															
Organic Heart Diseases															
Bronchitis															
Pneumonia, Lobar															
Pneumonia, Broncho															
Other Respiratory Diseases															
Diseases of Stomach (Cancer excepted)															
Diarrhoeal Diseases (under 5 years)															
Appendicitis and Typhlitis															
Hernia, Intestinal Obstruction															
Cirrhosis of Liver															
Bright's Disease and Nephritis															
Diseases of Women (not Cancer)															
Puerperal Septicæmia															
Other Puerperal Diseases															
Congenital Debility and Malformation															
Old Age															
Accident															
Homicide															
Suicide															
Undefined Causes															
All Other Causes															
Totals for 1917															

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
NINTH WARD

CAUSES	Yel	Col	White	Total	Males	Fe	Under 1	1 and Under 5	5 and Under 10	10 and Under 15	15 and Under 20	20 and Under 25	25 and Under 30	30 and Over	
For all causes		49	44	529	274	248	67	12	9	88	14	44	140	120	114
Paralysis				1	1									1	
Smallpox															
Scarlet Fever		1		1	1			1		1					
Whooping Cough			2	2	1	1			1	2					
Diphtheria			2	2					1	1					
Influenza		1	52	57	44	43	4	2	2	8	4	14	48	8	
Epidemic Meningitis (Cerebro Spinal)			2	2	1	1		1		1					
Other Epidemic Diseases															
Tuberculosis of Lungs (Consumption)		1	50	51	44	44							12		
Tuberculous Meningitis			1	1		1			1	1					
Other Tuberculosis			3	3	3		1			1				1	
Cancer Malignant Tumor		1	32	33	14	19							6	12	15
Softening of the Brain			36	36	16	22							3	16	19
Organic Heart Diseases			35	37	15	22					1	2	4	14	16
Pneumonia			4	5	1	4	1	1		2					8
Pneumonia, Lobar		5	52	57	30	27	3	1	1	5	1	8	26	11	8
Pneumonia, Broncho		2	24	26	11	15	5	4	2	11	2	2	6	2	3
Other Respiratory Diseases			5	5	5		1			1		1			
Diseases of Stomach (Cancer &c)															
Diseases of Intestines															
Appendicitis and Typhlitis			2	2		2									
Hernia Intestinal Obstruction		1	3	4	1	3							2	1	1
Cirrhosis of Liver			4	4	4								1	3	
Bright's Disease and Nephritis															
Diseases of Women (not Cancer)		3	45	48	24	24						2	4	22	26
Puerperal Septicemia															
Other Puerperal Diseases															
Congenital Deformity and Malformation		6	27	33	21	12	8			33					
Old Age			6	6	5	1									6
Accident		6	12	18	16	2				1	3	2	6	5	1
Homicide															
Selficide			4	4	1	3									
Undefined Causes			1	1						1				2	
All Other Causes		6	48	54	27	20	1	2	1	9	1	3	7	13	16
Totals for 1911		49	1	274	274	248	67	12	9	88	14	44	140	120	114

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX AND AGE, AND COLOR
TENTH WARD

CAUSES	Age under 14	Total Deaths	White	Total Deaths	Male	Female	Under 1 Year	Under 2 Years	Under 5 Years	10 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total all causes	43	439	474	158	101	54	1	1	194	7	8	3	67	45
Infantile Paralysis		1	1	1					1					
Typhoid Fever		1	1	1									1	
Malaria														
Scarlet Fever		15	16	8	7	3	8	4	1					
Measles														
Smallpox														
Diphtheria		6	6	1	5			1	1					
Epidemic Typhus		2	2		2			2	2					
Epidemic Cerebro Spinal Meningitis		69	70	47	23	5	7	6	14	1	7	40	2	2
Other Epidemic Diseases		4	4	4			1	1						
Tuberculosis of Lungs (Consumption)	5	35	40	28	12		1			1	7		11	2
Tuberculous Meningitis		4	4	1	3	2	1		3					
Other Tuberculosis	1	3	4	3	1							1	1	
Cancer Malignant Tumor	1	20	21	6	15								3	4
Simple Meningitis		2	2		2		1							
Apoplexy, Softening of the Brain	1	10	11	6	5									
Organic Heart Diseases		20	22	10	12						4			
Pneumonia	1	25	29	10	19	12	6	4	1					
Influenza, Fever	11	54	65	40	25	5	14	1	1	1				
Pneumonia, Bronchitis	3	28	31	14	17	11	8	4	23					
Other Respiratory Diseases	1	3	4	3	1									
Enteric Fevers (Typhoid, Typhus, etc.)		3	3	2	1	1								
Diarrhoeal Diseases (under 5 years)		5	30	15	15	26	3	1						
Appendicitis and Typhilitis		2	2		2						1		1	
Hernia, Intestinal Obstruction		3	3	2	1	2			2			1		
Cirrhosis of Liver		3	3	3									1	
Bright's Disease and Nephritis	2	27	29	13	16	2		1	3					1
Diseases of Women (not Cancer)		1	1		1									
Puerperal Septicemia		1	1		1									
Other Puerperal Diseases		3	3		3							3		
Congenital Debility up to Maturation	1	21	22	18	9	22			22					
Old Age														
Accident		15	15	11	4				5	1	1			1
Homicide		2	2		2									
Suicide		1	1		1									
Unrecorded Causes	1		1				1		1				1	
All Other Causes	2	24	26	13	13	8	1		9	1	1	4	4	7
Totals for 1917	43	289	322	200	132	79	25	1	119	19	18	69	65	42

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
ELEVENTH WARD

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR IN
TWELFTH WARD

CAUSES	Year	Colored	White	Total	Males	Females	Under 1 Year	Under 2	Under 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total Deaths	1917	1	1	2	227	37	43	37	212	39	6	41	81	4
Infantile Paralysis														
Dysentery														
Malaria														
Scarlet Fever														
Whooping Cough														
Diphtheria														
Influenza														
Epidemic Meningitis (Cerebro Spinal)														
Other Epidemic Diseases														
Tuberculosis of Lungs (Consumption)														
Tuberculous Meningitis														
Other Tuberculosis														
Cancer, Malignant														
Simple Meningitis														
Apoplexy, Softening of the Brain														
Organic Heart Diseases														
Bronchitis														
Pneumonia, Lobar														
Pneumonia, Broncho														
Other Respiratory Diseases														
Diseases of Stomach (Cancer excepted)														
Intestinal Diseases (under 5 years)														
Appendicitis and Typhoid														
Hernia, Intestinal Obstruction														
Cirrhosis of Liver														
Bright's Disease and Nephritis														
Diseases of Women and Children														
Puerperal Septicemia														
Other Puerperal Diseases														
Congenital Deblity and Malformation														
Old Age														
Accident														
Homicide														
Self-killing														
Ill-defined Causes														
All Other Causes														
Totals for 1917														

Continued on next page

MORTALITY IN THE POLYCLINIC, A. L. S. H. CLINIC, AND COLONY
THIRTEENTH WARD

CAUSES	In- fer-	Col- or	White	Total Deaths	Male	Fe- male	Un- der 1 Year	1 and Under 2	2 and Under 5	Un- der 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and over
Total, all causes	6	697	618	290	323	77	16	24	117	21	8	8	8	8	8
Infantile Paralysis															
Typhoid Fever															
Malaria															
Scabies															
Measles															
Scarlet Fever															
Whooping Cough	1	1	2	1	1	1	1	1	2	3					
Diphtheria		5	5	2	3										
Tuberculosis		139	139	65	74	8	2	6	11	6	24	84	10	4	
Phthisis Pulmonalis															
Other Tuberculous Diseases															
Tuberculosis of Lungs (Consumption)															
Tuberculous Meningitis		1	10	6	4	2		4	6	3	1	1	1	1	
Other Tuberculosis		4	4	2	2					1	1	1	1	1	
Cancer, Malignant Tumor		22	22	9	20					2	5	11	4	4	
Simple Meningitis		10	10	7	3	2	2		4		3	2	1	1	
Apoplexy, Softening of the Brain		25	25	9	16						3	12	10	21	
Organic Heart Diseases	1	53	54	25	29					1	4	12	16	21	
Bronchitis		4	4		4	1	1		2						
Influenza, Infant															
Pneumonia Broncho		19	19	7	12	2	5	7	10	1	5	1	2	4	
Other Respiratory Diseases	1	14	14	9	5	1			2		1	2	5	4	
Diseases of Stomach (Cancer excepted)		8	8	6	2	1			1	2	2	2	2	2	
Bartholomew's Diseases (under 5 years)		21	21	10	11	16	2	3	21						
Appendicitis, Acute		3	3	1	2					1	1	1	1	1	
Jaundice, Intestinal Obstruction		6	6	5	1										
Cirrhosis of Liver		6	6	5	1										
Bright's Disease and Nephritis	1	36	36	16	20					1	4	20	11	11	
Diseases of the Urinary Organs															
Peritonitis, Acute															
Other Acute Diseases		4	4		4						2	2			
Congenital Deformities and Malformations		30	30	15	24	30				30					
Old Age		2	2		2										
Arteriosclerosis		10	10	12	7	1		2	3	2	1	4	4	4	
Stroke															
Heart Failure		4	4		4										
Valvular Disease	1	41	41	24	24				1	4					
Other Diseases															
Total															

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR.
FOURTEENTH WARD

CAUSES	Yellow	Colored	White	Total	Males	Females	Under 1 Year	1 and 2 der 2	2 and 5 der 5	Under 5 Years	5 to 14	15 to 44	45 to 64	65 and Over	
Total, all causes	—	93	661	684	349	335	7	1	45	—	26	84	65	125	71
Infantile Paralysis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	1	14	15	—	—	4	3	6	1	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Influenza	—	—	1	1	—	—	—	—	1	8	5	25	50	7	—
Epidemic Meningitis (Cerebro Spinal)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Epidemic Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid Fever	—	—	41	41	—	—	—	—	—	—	—	—	16	12	1
Typhoid Meningitis	—	1	—	—	—	—	—	—	—	—	—	—	—	3	—
Typhoid Pneumonia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cancer, Malignant Tumor	—	1	—	—	—	—	—	—	—	—	—	—	—	5	9
Simple Meningitis	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Apoplexy, Softening of the Brain	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Organic Heart Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rheumatism	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fibrous Heart	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pericarditis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Coronary Arteries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Respiratory Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diseases of Stomach (Gastric) and Intestines	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dyspepsia, Diseases of Stomach	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Appendicitis and Typhitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hemorrhage, Intestinal Obstruction	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cirrhosis of Liver	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bright's Disease and Nephritis	—	—	42	42	24	18	—	1	—	1	1	1	20	11	—
Diseases of Women (not Cancer)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Septicemia	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—
Other Puerperal Diseases	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—
Congenital Debility and Malnutrition	—	2	40	42	22	20	42	—	—	42	—	—	—	—	—
Old Age	—	—	36	36	24	12	2	3	4	9	4	6	9	1	1
Accident	—	—	4	4	4	—	—	—	—	—	—	—	—	4	—
Intoxication	—	—	4	4	—	—	—	—	—	—	—	—	—	—	—
Self-Suicide	—	—	7	7	5	2	—	—	—	—	—	2	—	1	1
Ill-defined Causes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
All Other Causes	—	1	48	49	21	28	6	1	2	9	4	9	6	14	14
Totals for 1917	—	95	471	486	246	240	100	24	15	138	29	84	17	4	72

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
FIFTEENTH WARD[illegible]

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX AND AGE SIXTEENTH WARD

CAUSES	Year	Col and Col	White	Total	Male	Female	Under 1 Year	1 and 2 and 3	4 and 5	6 and 7	8 and 9	10 and 14	15 and 24	25 and 44	45 and 64	65 and over
Tuberculosis	-	-	45	48	28	20	44	-	-	7	9	4	-	-	-	93
Typhoid Fever	-	-	1	1	-	1	-	-	-	-	-	-	-	1	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Smallpox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	-	-	7	7	2	5	1	2	2	5	2	-	-	-	-	-
Scarlet Fever	-	-	2	2	2	-	-	1	1	1	1	-	-	-	-	-
Whooping Cough	-	-	2	2	-	-	1	-	-	-	-	-	-	-	-	-
Diphtheria	-	-	2	2	2	-	-	2	2	2	4	1	-	-	-	-
Influenza	-	-	5	5	3	2	1	-	-	-	-	-	-	-	-	-
Epidemic Meningitis (not Spinal)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Epidemic Diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epidemic of Typhus (not Spinal)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Epidemic Diseases	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-
Cancer (Malignant)	-	-	-	-	9	14	-	1	-	-	-	1	1	2	18	7
Stomach Diseases	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-
Appendicitis and Typhlitis	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-
Other Stomach Diseases	-	-	-	-	-	24	1	-	-	-	-	-	-	-	-	-
Other Stomach Diseases	-	-	4	4	19	2	2	-	-	1	3	2	2	2	14	12
Pneumonia (not Cancer)	2	-	56	58	34	24	2	4	2	8	2	10	26	7	5	5
Pneumonia (Cancer)	-	-	95	95	70	15	1	-	-	-	-	-	-	-	-	-
Other Respiratory Diseases	-	-	-	-	-	-	-	1	-	1	1	1	1	1	1	2
Diseases of Stomach (not Cancer)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Appendicitis and Typhlitis	-	-	3	3	9	1	-	-	-	-	-	-	-	-	-	-
Hernia Intestinal Obstruction	-	-	4	4	2	2	-	1	1	2	-	-	-	3	-	-
Cirrhosis of Liver	1	-	3	4	3	1	-	-	-	-	-	-	-	1	1	-
Bright's Disease and Nephritis	1	-	37	38	22	16	-	-	-	-	-	-	-	1	2	1
Diseases of Women (not Cancer)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Puerperal Septicemia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Puerperal Diseases	1	-	1	2	9	-	-	-	-	-	-	-	-	-	-	-
Congenital Deformity and Malformation	1	-	92	23	15	8	3	-	-	-	-	-	-	-	-	-
Old Age	-	-	4	4	2	2	-	-	-	-	-	-	-	-	-	-
Accident	-	-	6	30	-	-	-	-	-	-	-	-	-	-	-	4
Homicide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Self-Suicide	-	-	4	4	0	1	-	-	-	-	-	-	-	-	-	-
Undeclared Causes	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-
All Other Causes	1	-	47	48	20	28	8	1	-	4	-	3	8	13	20	-
Totals for 1917	4	-	99	295	175	120	39	19	11	63	9	17	62	62	95	-

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX AND AGE
JANUARY, 1918

CAUSES	MALES	FEMALES	TOTAL	MALES	FEMALES	TOTAL	Under 1 Year	1 and 2 der	3 and 4 der	5 and 6 der	15 to 24	25 to 44	45 to 64	65 and Over
Total all causes	42	56	98	62	34	96	87	26			1	1		
Infantile Paralysis														
Epidemic Fever		1	1	1							1			
Measles														
Scarlet Fever							2	2	2	4				
Whooping Cough	2	3	5	1	4	5	1	1	2	4	1			
Diphtheria		1	1				1	1	1	1			1	
Meningitis (Cerebral or Spinal)		3	3	3			1	1		2				
Tuberculous Diseases														
Tuberculosis of Lungs (consumption)	5	27	32	39	18	57					11	30	14	2
Tuberculous Meningitis		2	2	1	1	2			2	2				
Tuberculous Peritonitis	1	1	2	1	1	2					1	1		
Malignant Tumor		27	27	11	16	43					2	4	11	10
Meningitis		1	1	1		2		1		1				
Softening of the Brain	4	30	34	39	31	70						1	18	24
Organic Heart Diseases	3	65	68	34	34	68					1	2	8	31
Coronary Artery Disease		27	27	12	15	42	16	1	1	18	1			7
Hypertension							3	8	1	12	1	4	22	10
Valvular Disease							10	9	8	27		1	7	5
Congestive Heart Failure												1	4	4
Anemia							1			1		4	1	2
Diabetes Mellitus		6	6	2	3	9	13	1	1	15				
Hypertension											2	2		
Cirrhosis of Liver		5	5	4	1	10							2	3
Bright's Disease and Nephritis	9	83	92	48	44	92	1			1	2	2	13	43
Diseases of Women (not Cancer)														
Puerperal Septicemia														
Other Puerperal Diseases	1	1	2		2	3						2		
Congenital Debility and Malformation	1	97	98	19	16	35	25			28				
Old Age		9	9			18								
Accidents								1	2	4	2	2	16	19
Violence												1		
Self-Suicide													3	1
Unlabeled Causes														
All Causes	1	1	2	27	26	53	6			8	8	6	20	34
Totals for January, 1917	64	563	627	363	263	626	18	9	114	14	34	170	182	164

The rate per 1,000 live births was 18.0 per 1,000 live births for the month of January, 1917, was 18.8, estimated population 400,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
FEBRUARY, 1918

CAUSES	Yel. and Col.	White	Total	Males	Females	Under 1 Year	1 and 2 Under 5	2 and 5 Under 10	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total all causes	50	108	152	81	69	86	27	26	142	13	33	11	150
Infantile Paralysis	-	-	-	-	-	-	-	-	-	-	-	-	-
Typhoid Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-	-	-	-
Smallpox	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	2	4	6	2	4	1	3	2	6	-	-	-	-
Scarlet Fever	-	9	2	-	2	-	-	1	1	1	-	-	-
Whooping Cough	1	6	6	2	4	4	-	2	6	-	-	-	-
Diphtheria	2	5	7	3	4	1	1	3	5	2	-	-	-
Influenza	1	1	2	1	1	-	-	-	-	-	-	-	-
Epidemic Meningitis (Cerebro Spinal)	-	2	2	-	2	-	-	1	1	-	-	-	-
Other Epidemic Diseases	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis of Lungs (consumption)	-	-	4	4	-	-	-	1	1	1	-	-	2
Tuberculosis Meningitis	-	-	1	1	-	1	1	2	4	1	-	-	-
Other Tuberculosis	-	-	-	-	-	-	-	-	-	-	-	-	-
Cerebro Meningitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Simple Meningitis	1	1	2	1	1	-	-	-	-	-	-	-	-
Apoplexy & Striking of the Brain	-	1	1	-	1	-	-	-	-	-	-	-	-
Other Heart Diseases	-	14	14	-	14	-	-	-	-	-	-	-	-
Stroke	-	14	14	-	14	-	-	-	-	-	-	-	-
Exhaustion, Solar	13	-	13	-	13	-	-	-	-	-	-	-	-
Exhaustion, Bronchial	1	4	5	1	4	-	-	-	-	-	-	-	-
Other Respiratory Diseases	-	-	-	-	-	-	-	-	-	-	-	-	-
Diseases of Stomach and Intestines	-	-	-	-	-	-	-	-	-	-	-	-	-
Diarrhoeal Diseases (cholera, dysentery)	-	-	-	-	-	-	-	-	-	-	-	-	-
Atrophic and Pyloric	-	-	-	-	-	-	-	-	-	-	-	-	-
Heart, Intestinal Obstruction	-	-	-	-	-	-	-	-	-	-	-	-	-
Diseases of Liver	-	-	-	-	-	-	-	-	-	-	-	-	-
Bright's Disease and Nephritis	10	59	69	37	32	-	-	-	-	-	-	-	-
Diseases of Women (not Cancer)	-	-	-	-	-	-	-	-	-	-	-	-	-
Septicæmia	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Cancer Diseases	-	-	-	-	-	-	-	-	-	-	-	-	-
Congenital Deafity and Malformation	-	-	-	-	-	-	-	-	-	-	-	-	-
Old Age	-	5	5	2	3	-	-	-	-	-	-	-	-
Accident	-	3	3	-	3	3	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-	-	-	-	-	-
Suicide	-	4	4	2	2	-	-	-	-	-	-	-	-
Undefined Causes	-	-	-	-	-	-	-	-	-	-	-	-	-
Total for February	1	108	109	59	50	66	27	26	142	13	33	11	150

The present population of Newark is estimated to be 177,000. The present population of Newark is estimated to be 177,000. The present population of Newark is estimated to be 177,000.

MORTALITY FROM INFANTIL CAUSES OF CHILDREN BY SEX, AGE AND COLOR
MARCH, 1918

CAUSES	Yellow or Colored	White	Total Deaths	Males	Females	Under 1 Year	1 and 2 Under 2	2 and 5 Under 5	5 to 14	14 to 24	24 to 44	44 to 64	64 and Over
Infantile Paralysis		1	1	1		1		0					1
Dysentery and Fever													
Malaria													
Smallpox													
Measles	7	21	28	8	19	6	11	8	25	1			
Scarlet Fever	1	3	4	1	3	3		1	4				
Whooping Cough		2	2	1	1					1			
Diphtheria		7	7	5	2		4	1	5	2			
Influenza	1	7	8	3	5	2			2		1	3	2
Epidemic Meningitis (Cerebro Spinal)		4	4	3	1		2	2	4				
Other Epidemic Diseases													
Tuberculosis of Lungs (Consumption)	7	74	81	54	27				1	22	39	16	2
Tuberculous Meningitis		3	3		2	1		1	2	1			
Other Tuberculosis		2	2	2						2			
Cancer Malignant Tumor		36	36	7	29					1	7	16	12
Simple Meningitis		5	5	2	3	2	1	1	4		1		
Cerebral Syphilis													
Heart Diseases	7	66	73	37	36	3			3	4	9	23	17
Bronchitis	4	22	26	12	14	16	2	9	21				2
Pneumonia, Lobar	96	112	138	82	56	6	6	8	15	6	20	50	38
Pneumonia Broncho	6	36	42	15	27	15	10	6	34	3			
Other Respiratory Diseases		16	16	4		1	2		3			4	3
Diseases of Stomach and Intestines		4	4										
Dartrineal Diseases (under 5 years)	3	10	12	4	8	11		1	12				
Adventitious and Typhitis		5	5	1	4					1	3		
Hemorrhoidal Intestinal Obstruction	1	5	6	3							2	2	1
Cirrhosis of Liver	1	6	7	6	1						1	6	2
Gravels Disease and Nephritis	3	70	73	42	31	2		2	4	1	13	31	24
Diseases of Women (not Cancer)													
Periperal Septicemia			1		1					1			
Other Puerperal Diseases		2	2		2								
Conjunctivitis, Deafness and Malformation		71	71	33	38	4			10		2		
Old Age													
Accident	1	1	19	7	4			1	1	1	9	6	
Homicide		2	2	2		1			1		1		
Selfde		6	6	5	1							3	
Undefined Causes													
All Other Causes	8	46	49	24	25	3		2	5	2	4	14	4
TOTAL for March													

The population of the city of St. Louis, Mo., for the month of March 1917, was 178,000 estimated population 190,000

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
APRIL, 1918

CAUSES	Col- ored	White	Total deaths	Males	Females	Un- der Year	1 der 2	2 and 3 der 5	Un- der 5 Years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total all causes	49	618	668	362	306	98	63	41	202	34	32	34	164	192
Infantile Paralysis		1	1		1					1				
Typhoid Fever														
Malaria														
Smallpox														
Measles	1	34	35	20	15	8	15	9	32	3				
Scarlet Fever		2	2			2		1	1	1				
Whooping Cough	2	4	6			3	1	1	6					
Diphtheria		11	11	6	5	1	3	5	9	2				
Epidemic Meningitis (Cerebro Spinal)	1	11	12	6	6	4	3		7	3		2		3
Other Epidemic Diseases														
Tuberculosis of Lungs (Consumption)	7	66	73	37	36				9	9	4		10	3
Tuberculous Meningitis		18	18	6	7	2	4	3	9	3	1			
Other Tuberculosis	2	3	5	4	1	1			1	2			2	
Cancer, Malignant Tumor		27	27	7	20									3
Simple Meningitis		2	2	1	1				1	1				
Aneurysm, Rupture of the Brain		21	21		21									9
Coronary Heart Diseases	4	20	24	13	11			9	9				4	4
Pericarditis	2	14	16	7	9	11	1		12				1	3
Pneumonia, Lobar	12	73	85	49	36	7	14	5	26	1	9	22	19	8
Pneumonia, Broncho		30	30	12	18	8	13	2	26	1		1	1	1
Other Respiratory Diseases	1	10	11	7	4							1	7	3
Diseases of Stomach (Cancer excepted)		4	4	1	3	1		1	2			1		1
Diarrhoeal Diseases (under 5 years)	3	9	12	9	3	7	2	3	12					
Appendicitis and Typhitis	1	7	8	7	1					3	2	2	1	
Hepatitis, Intestinal Obstruction		2	2		2	1			1		1	4		
Cirrhosis of Liver	1	3	4	4									4	
Bright's Disease and Nephritis	3	50	53	26	27		2	1	3			9	24	17
Diseases of Women (not Cancer)														
Leucorrhoea	1	2	2		2									
Other Puerperal Diseases	1		1		1							1		
Chorea, Insanity and Mental Affection	1	3	4	2	2				3					
Old Age		1	1		1									1
Accident	2	38	40	20	20		1	3	4	3	3	16		3
Homicide		2	2	2						1		1		
Suicide		5	5	5						1		2		
Undefined Causes														
All Other Causes	4	64	68	32	36	5	2	3	10	4	1	14	20	17
Total for April	49	618	668	362	306	98	63	41	202	34	32	34	164	192

The present population of Newark is estimated for these calculations at 415,000. The death rate for the month of April, 1917, was 15.8 estimated population 400,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
MAY 1918

	Yellow	Colored	White	Total	Males	Females	Under 1 year	and 1 year to 2	and 2 years to 5	5 to 14	14 to 24	24 to 44	44 to 64	and Over
Principal causes	1	36	490	527	292	235	97	27	31	175	16	17		
Paralysis			1	1	1				1	1				
Fever			1	1		1						1		
Measles			24	28	15	13	8	10	9	27	1			
Whooping Cough		1	5	6	3	3	4	1	1	6				
Typhoid			5	5	2	3		2	2	4			1	
Diphtheria			3	3	1	2				2				
Measles, Cerebro Spinal		1	6	7	4	3	3	2		5	1		1	
Other Epidemic Diseases			1	1		1								
Tuberculosis of Lungs (Consumption)		3	54	61	46	15				1	7	35	15	3
Tuberculosis Meningitis		2	3	5	1	4				4	1			
Cancer, Malignant Tumor		1	7	8	4	4	1		1	2	1	3	18	12
Suppurative Meningitis		1	1	2	1	1		1		1				1
Apoplexy Softening of the Brain		2	22	24	8	16						2	10	12
Organic Heart Diseases		1	47	48	28	20					2	1	11	13
Bronchitis		1	7	8		8	4	4		6				
Pneumonia, Lobar		2	47	49	28	21	11	2	2	16	3	1	10	12
Pneumonia, Broncho		2	8	10	6	4	2	3	2	7			1	1
Respiratory Diseases			7	7	4	3	1			1	1		1	1
Diseases of Stomach (Cancer excepted)			6	6										
Diseases (under 5 years)		1	16	17	10	7	12	1	4	17				
Diarrhea and Typhoid		1	4	5	3	2			1	1	1		2	
Dissection		1	6	7	4	3			1	1			1	
Orthosis of Liver														
Women (not Cancer)			1	1										
Scrophulous			1	1										
Diseases														
Deformity and Malformation		6	36	42	30	12	42							
			3	3		1								
				27	30	7	1		2					
			3	3		3								
Undefined Causes														
All Other Causes	1	3	47	51	29	22		1		4				
Total May	1	40	537	578	321	257	107	28	32	179	17	18		

The total population was 100,000. The population is estimated for the month of May 1917, was 157; estimated population 400,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR JULY, 1918

CAUSES	Yel.	Col.	White	Totals	Males	Females	Under 1	1 and under 5	5 and under 10	10 and under 15	15 to 20	20 to 25	25 to 35	35 and over
Infantile Paralysis			1	1					1	1				
Typhoid Fever														
Malaria														
Smallpox														
Measles			4	4	1	3	2	1	1	4				
Scarlet Fever			1	1	1				1	1				
Whooping Cough	1		4	5	2	3	2	1	2	5				
Diphtheria			1	1		1			1	1				
Influenza														
Epidemic Meningitis (Cerebro Spinal)			2	2	1	1	1	1		2				
Other Epidemic Diseases														
Tuberculosis														
Consumption														
Other Tuberculosis			5	5	3	2	1		1		2	4	2	
Cancer, Malignant Tumor	2		21	23	10	13							8	4
Simple Meningitis			6	6	2	4	1	1	1	2	3			
Apoplexy Suffering of the Brain			24	24	13	11								
Organic Heart Diseases	1		43	44	20	24			1	1	5	2	7	12
Bronchitis	1		5	6	3	3	2	2		4			1	1
Pneumonia, Lobar	2		16	18	12	6	6	4	3	12	1	4	1	1
Pneumonia, Broncho			12	12	8	4	4	2	7	1		1	3	1
Other Respiratory Diseases			4	4	2	2		1	1				2	1
Diseases of Stomach (Cancer excepted)			1	1		1								
Diarrhoeal Diseases (under 5 years)	5		66	71	36	35	60	9	2	71		1		
Atrophic and Typhilitis			5	5	2	3				2	1			
Intestinal Obstruction														
Cancer of Liver	1		4	5	4	1						2	3	
Hepatic Disease and Nephritis	6		43	49	29	20						8	33	18
Diseases of Women (not Cancer)			1	1		1							1	
Puerperal Sepsis														
Other Puerperal Diseases			4	4		4								
Concussion and Malformation														
Old Age														
Accident														
Homicide	6		24	30	28	2	1		3	4	3	6	6	5
Suicide														
Ill defined Causes														
All Other Causes			6	6		6								14
Totals for July, 1917	1		14	15		14		13	134					

The death rate for the month of July, 1918, was 1.18 per 1000 of population, as compared with 1.14 for the corresponding month of July, 1917, was 1.40 estimated population 110,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLORED
AUGUST, 1918

CAUSES	Yel ow	Col ored	White	Total deaths	Males	Females	Under 1 Year	1 and 2 Un- der 5	2 and 5 Un- der 15	15 to 44	45 to 64	65 and over
Total all causes			1	1					1			1
Infantile Paralysis			1	1								1
Typhoid Fever			1	1								1
Malaria						1						
Scarlet Fever									1			
Whooping Cough			1	1								
Diphtheria			1	1								
Influenza			1	1								
Epidemic Meningitis (Cerebro Spinal Other Infectious Diseases)			1	1					1			
Tuberculosis of Lungs (Consumption)			1	1								
Tuberculosis of Mucous Membranes							1					
Other Tuberculosis									1			
Cancer Malignant Tumor			1	1								1
Simple Meningitis												1
Apoplexy Softening of the Brain			1	1								
Organic Heart Diseases			1	1								
Bronchitis			1	1								
Pneumonia Bacterial			1	1								
Pneumonia Bacterial			1	1								
Other Respiratory Diseases			1	1								
Diseases of Stomach (Cancer excepted)			1	1								
Diarrhoea, Diseases (under 5 years)			1	1								
Appendicitis and Typhilitis			1	1								
Peritonitis (Intestinal Obstruction)			1	1								
Cirrhosis of Liver			1	1								
Arterio Sclerosis and Nephritis			1	1								
Diseases of Women (not Cancer)			1	1								
Puerperal Septicæmia			1	1								
Other Puerperal Diseases			1	1								
Congenital Deformity and Malformation			1	1								
Old Age			1	1								
Accident			1	1								
Homicide			1	1								
Suicide			1	1								
Undefined Causes			1	1								
All other Causes			1	1								
Totals for August, 1918			1	1								

The death rate for the month of August 1918, for the city of Newark is 1.8 per 1,000 of the population. The present population of Newark is estimated for the calculations at 430,000. The death rate for the month of August, 1917, was 1.8 estimated population 410,000.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR
SEPTEMBER, 1918

CAUSES	Ye.	Col	White	Total	Males	F.	U. S. 1917	Un.	Un.	U. S. 1917	to	to	to	to	65 and over
Total, all causes	34	410	444	247	196	80	17	24	123	10	23	15	16		
Infantile Paralysis															
Typhoid Fever		3	3	2						1		1			1
Shallpox															
Measles															
Scarlet Fever															
Whooping Cough		2	2				1	1	2						
Diphtheria		11	11	9	2		1	8	9	2					
Epidemic	1	1	11	10	1						2	7	2		
Epidemic Meningitis (Cerebro Spinal)															
for Epidemic Diseases															
Tuberculosis of Lungs (Consumption)	5	32	42	27	15			1	1			6	17	10	3
Tuberculosis Meningitis		2	2	1	1	1	1		2						
Other Tuberculosis	1	1	2				1		1					1	
Malignant Tumor	1	23	24	11	13							5	14	4	
Apoplexy, Softening of the Brain		25	25	4	21								3	12	10
Organic Heart Diseases	1	45	46	11	2							4	8	16	15
Bronchitis	1	2	3	1	2	1	1		2	1					
Pneumonia, Lobar	1	15	16	9	7	1	1	2	4		2	7		3	
Pneumonia, Broncho	3	7	10	6	4	2	3	1	6			3	1		
Other Respiratory Diseases	1	3	4	3	1							1	1		
Influenza	1	3	4	2	2	1			1			2		1	
Influenza and Pneumonia	5	43	48	20	19	41	2	5	48						
Septicemia		3	3		3					2	1				
Heart Failure and Coronary	1	6	7	6	1	1	1					1	3	1	
Chronic Liver		4	4										4		
Chronic Kidney and Nephritis	3	38	41	14	17	1			1		3	6	16	15	
Diseases of Women (not Cancer)															
Puerperal Septicemia															
Other Puerperal Diseases	1	5	6		6							1	5		
Convulsions (not Epilepsy)															
Accident	3	33	36	25	11		1	2	3	4	10	9	7	3	
Homicide		4	4												
Suicide		3	3		1										
Undefined Causes															
All Other Causes	5	42	47	23	24	2	1	1	4		3				
Totals for September, 1917	41	301	432	237	196	85	27	17	139	13	27	16	18		

The death rate for New York was 12.4 per 1,000 of population, as against 11.7 for the previous month. The present population of New York is estimated for these calculations at 43,000. The death rate for the United States for the same period was 10.7 per 1,000 of population.

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR OCTOBER, 1918

CAUSES	Ye. of age	White	Total deaths	Males	Fe- males	Un- der 1 year	1 and Un- der 2	2 and Un- der 3	Un- der 5 years	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over	
Total		1	81	77	15	962	135	90	127	352	98	348	831	242	145
Infantile Paralysis															
Typhoid Fever			3	3	3						1	1	1		
Malaria															
Scarlet															
Measles			1	1	1			1	1						
Scarlet Fever															
Whooping Cough			3	5	3	1	1	3	5						
Diphtheria			7	7	2	5	1	2	1	4	2				1
Epidemic Typhus		30	934	970	503	467	23	35	64	128	52	105	509	71	20
Epidemic Meningitis (Cerebro Spinal)															
Other Epidemic Diseases															
Tuberculous Meningitis															
Other Tuberculosis															
Cancer, Malignant Tumor			34	34	12	22	1	1	2	1	2	1	1	1	
Simple Meningitis															
Malignant Syphilis of the Brain															
Other Syphilis Diseases		4	85	69	48	26	1		1	2	2	2	11	27	25
Prostatitis		2	31	33	18	15	6	8	5	22	1	1	8	3	3
Pneumonia, Lobar		27	304	321	166	165	9	10	15	34	18	68	174	29	8
Pneumonia, Bronchopneumonia		16	140	158	74	84	14	21	24	59	7	14	61	10	7
Other Respiratory Diseases															
Diseases of Stomach (Cancer excepted)			7	7	5	2	2	1	1	4					
Diarrhoeal Diseases (under 5 years)		1	28	29	13	16	19	6	4	29					2
Appendicitis and Typhoid			4	4	3	1					1	3			
Other Intestinal Obstruction															
Cirrhosis of Liver		1	5	6	4	2									
Bright's Disease and Nephritis		2	46	48	25	23									
Diseases of Urinary Tract (not Cancer)															
Diabetes Mellitus															
Other Endocrine Diseases			5	5	5										
Congenital Deformities			44	47	20	4			4						
Old Age			4	4	1										
Accident		1	34	38	27	11	2	1	3	6	7				
Fire			5	5	4										
Self-suffocation			6	6	2	4									
Un-defined Causes															
All Other Causes		7	52	59	29	30	4	1	1	5	5	9	14	10	
Totals for October, 1917		29	388	417	233	184	71	22	10	103	17	68	117	9	

The death rate for the month of October, 1918, was 12.1 per 1,000 of population, as against 12.1 for the previous month. The present population of New York City is estimated for these calendar months at 5,600,000. The population for the month of October, 1917, was 5,500,000, and population 4,900,000.

DEPARTMENT OF HEALTH

MORTALITY FROM PRINCIPAL CAUSES OF DEATH BY SEX, AGE AND COLOR NOVEMBER, 1918

CAUSES	Yellow Race	Col Race	White	Total	Males	Fe- male	Un- der 1 Year	1 and 2 Year	2 and 3 Year	Un- der 5 Year	5 to 14	15 to 24	25 to 44	45 to 64	65 and over
			799	849	445	404	94	43	41	178	29	113	263		
Infantile															
Diphtheria			6	6	3	3		5	2	5	1				
Influenza	10	249	232	117	135	12	0	1	73	13	31	124	20	5	
Croup	1							2	1	3	1	1	1		
Whooping Cough	5	41	46	23	13				2	2	1	11	17	18	
Scarlet Fever		8	8	8					2	1	1				1
Epidemic Typhus	2	10	21	8	13				1	1			3	8	10
Measles	2	27	29	13	16			2	2				2	18	8
German Measles	6	7	62	20	53	3	1		4	3	2	4	29	20	
Epidemic Typhus	3	17	20	9	11	6	8	1	15			1	1	8	
Influenza	5	109	114	58	56	4	7	11	92	3	20	55	13	1	
Pneumonia	1	46	41	25	13	8		6	16			6	13	1	3
Other Respiratory Diseases	1	10	17	7	6				1			4	4		4
Diarrhea	1	9	10	8	2	2	1	1	4			1	2	3	
Dysentery	1	11	12	4	5	10	1	1	12						
Typhoid		6	6	4							1	1	2	1	
Hernia															
Intestinal Obstruction															
Cirrhosis of Liver		5	5	4	1								4	1	13
Pneumonia	1	40	40	20	18							4		2	
Diseases of Women (not Cancer)															
Pneumonia															
Cancer													4		
Old Age															
Accident	2	37	30	9	1	1	1	1	5	5	4	8	14		
Homicide		1	1	1											
Suicide		4	4	2	2										
Undefined Causes															
All Other Causes	3	48	51	21	30	6	1	2	9			5	9	14	14

The estimated population for 1918 was 410,000. The estimated population for 1917 was 410,000. The estimated population for 1916 was 410,000. The estimated population for 1915 was 410,000. The estimated population for 1914 was 410,000. The estimated population for 1913 was 410,000. The estimated population for 1912 was 410,000. The estimated population for 1911 was 410,000. The estimated population for 1910 was 410,000. The estimated population for 1909 was 410,000. The estimated population for 1908 was 410,000. The estimated population for 1907 was 410,000. The estimated population for 1906 was 410,000. The estimated population for 1905 was 410,000. The estimated population for 1904 was 410,000. The estimated population for 1903 was 410,000. The estimated population for 1902 was 410,000. The estimated population for 1901 was 410,000. The estimated population for 1900 was 410,000.

DEATHS IN INSTITUTIONS, ETC., FOR 1918

Newark City Hospital	1,307
St. Michael's Hospital	448
Newark Memorial Hospital	135
St. Barnabas' Hospital	116
St. James' Hospital	95
Beth Israel Hospital	154
Babies' Hospital	103
Newark Private Hospital	33
Presbyterian Hospital	64
Homeopathic Hospital	58
Women and Childrens' Hospital	24
Maternity Hospital	10
Clinton Private Hospital	10
Port Newark Hospital	6
Essex County Isolation Hospital, Soho (Newark Residents)	23
Essex County Isolation Hospital, Soho (Newark Residents)	208
West End Hospital	4
North End Hospital	1
East End Hospital	2
Emergency Hospital	1
Dr. Waite's Sanatorium	3
Home for Crippled Children	5
Home for Incurables	18
Baptist Home	2
Foster Home	2
Arthur Comfort Home	8
Florence Crittenden Home	1
House of Good Shepherd	34
Little Sisters of the Poor (Home for Aged)	42
Alms House (Ivy Hill)	62
Eye and Ear Infirmary	5
Railroad Stations	4
Hotels and Lodging Houses	4

American Synthetic Dye Company ..	3
Butterworth-Judson Company ..	2
Trolley Cars	2
Railroad Trains ..	2
Railroad Tracks	8
Churches	1
St. Vincents' Academy ..	1
Essex County Jail ..	1
Police Stations	2
St. Peters' Orphanage.	1
City Dispensary	1
American Button Works.. ..	11
East Side Day Nursery	1
Court House	1
Firemen's Pharmacy	1
Military Park (Comfort Station).	1
Wilson Imperial Company..	1
Celluloid Company	1
Public Service Power House ..	3
Amalgamated Dye Company..	1
Maas & Waldstein	1
Heller Brothers	1
Police Ambulance	5
Submarine Boat Corporation.	4
West Side Park (lake). ..	1
Weequahic Park (lake)	1
Morris Canal ..	4
Passaic River ..	4
Bay Avenue (railroad crossing)....	1
Port Newark (Central Railroad)....	1
On Streets ..	15
Sewer Basin	1
Found in Yard	1
Total ..	3 107

FINANCIAL REPORT FOR THE YEAR 1918

Dr. Charles V. Craster, Health Officer:

DEAR SIR:—Following is the financial report of the Department for the year 1918:

RECEIPTS

	Tax Appropriation	Animal Permits	Anti-toxin Sales	Bacteriological Examinations	Chicken Permits	Chicken Slaughter House Permits	Ice Licenses	Milk Licenses	Milk Penalties	Plumbing Permits	Plumbers' Licenses	Miscellaneous	Total
City Commission	\$205,000.00												\$205,000.00
Sanitary Division		\$34.30			\$1,000.00	\$300.00	\$770.00					\$ 325.84	\$ 3,624.94
Food and Drug Division								\$2,878.50	\$400.00			\$30.11	\$ 3,308.61
Plumbing Division			\$100.00	\$500.00						\$2,132.00	\$1,700.00	\$0.00	\$ 4,832.00
Laboratories Division												\$8.43	\$ 701.78
Totals	\$205,000.00	\$74.30	\$100.00	\$500.00	\$1,000.00	\$300.00	\$770.00	\$2,878.50	\$400.00	\$2,132.00	\$1,700.00	\$1,077.38	\$217,472.59

DISBURSEMENTS

	Salaries	Heat, Light, Power, Telephones	Furniture and Fixtures	Improvements and Repairs	Printed Matter, Stationery, Postage	Travelling	Zookeepers Supplies	Stable Expenses	Drugs and Surgical Supplies	Provisions	Miscellaneous	Automobile	Automobile and Motorcycle Maintenance	Total
Administrative	\$10,722.56	\$7,007.94	\$ 355.30	\$632.75	\$5,547.30	\$20.51	\$358.95			\$2,500.00	\$ 879.76	\$1,477.00	\$1,000.00	\$30,000.82
Sanitary Division	27,400.00				419.00	84.00					388.80			\$28,281.80
Contagious Disease Division	3,334.00				1,536.00						\$3,000.50			\$ 7,870.50
Disinfecting Division	18,018.00				120.30						\$1,547.00			\$19,685.30
Dispensary	10,304.50				151.47						387.58			\$10,823.55
Laboratories	14,308.68				405.00			\$1,516.45			\$ 300.40			\$16,524.53
Tuberculosis Division	10,000.00				86.20	216.82					270.00			\$10,503.02
Food and Drug Division	22,900.00				446.75	707.27					\$1,940.81			\$25,994.83
Plumbing Division	9,002.44					126.00					\$ 301.00			\$9,429.44
Child Hygiene Division	14,065.66		\$105.00	15.00	\$34.50	198.07								\$14,413.23
District Doctors	4,300.00					160.15								\$ 4,460.15
Parochial School Division	4,320.00													\$ 4,320.00
Pension Fund										\$ 3,500.00				\$ 3,500.00
Totals	\$109,210.58	\$2,077.94	\$1,508.30	\$688.50	\$8,032.62	\$1,461.70	\$359.30	\$1,016.45	\$5,073.10	\$5,000.00	\$11,918.26	\$1,477.00	\$1,518.18	\$205,400.43

* Includes \$3,001.50 for reporting contagious Diseases.

† Includes \$1,141.74 for disinfectants.

‡ Includes \$801.44 for two motorcycles.

§ Includes \$60.00 for rent of clinic rooms.

Prior to the year above, office receipts were credited to the Department. Under Commission Government such receipts are credited to the City Miscellaneous Receipts Account.

